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LELAND STANFORD JUNIOR UNIVERSITY

JOURNAL OF SOCIAL SCIENCE,

CONTAINING THE

PROCEEDINGS OF THE AMERICAN ASSOCIATION.

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SEPTEMBER, 1904.

BOSTON PAPERS OF 1904.

PAPERS READ IN THE DEPARTMENTS OF JURISPRUDENCE,
SOCIAL ECONOMY, HEALTH, AND EDUCATION AND ART.



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AMERICAN SOCIAL SCIENCE ASSOCIATION.

DAMRELL & UPHAM AND THE BOSTON BOOK COMPANY, BOSTON, MASS.

[SELLING AGENTS FOR THE ASSOCIATION]

1904.

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INTRODUCTION.

The papers included in this number of the *Journal of Social Science* comprise all of the Boston addresses of 1904.

It may be well in this place to remind essayists once more of the *invariable rule* of the Association, that all papers engaged for the General Meeting are so secured with the understanding that they may be published in the *Journal* if deemed advisable. The members of the Council, however, are not pledged in advance to the publication of any particular paper. If writers choose to publish elsewhere, it must be with the stipulation that their papers may also be printed in the *Journal*, at the option of the Council as to date of publication. Heads of Departments are not solicitous to secure essays which, in general form and substance, have been read elsewhere before presentation at the Association Meeting.

A list of all addresses and papers will be found in the Table of Contents, and volumes published by the Association may be ordered of the Boston Book Company or of Damrell and Upham, Old Corner Bookstore, Boston, Mass., the selling agents of the Association.

MEMBERS OF THE ASSOCIATION.

All officers are *ex-officio* members of the Association, but persons serving on the Department Committees may or may not be members of the Association.

In the list herewith submitted the annual and life members are given alphabetically, and the honorary and corresponding members according to nationality. The only distinction between honorary and corresponding members is that the former reside in the United States, and the latter in foreign countries. *It was voted at a meeting of the General Council that the "Journal" of the Association shall not be sent to any member who has not paid his dues for the year in which the convention is held which is reported in the "Journal."* *It was subsequently voted at a meeting held at Woodmont, Conn., July 6, 1898, that the General Secretary be permitted to use his discretion in carrying into effect this resolution.*

BUSINESS OF 1904.

The American Social Science Association held its Forty-second Annual Meeting at Boston, Mass., beginning Wenesday evening, May 11, and closing with the session of Saturday morning, May 14. The proceedings of the convention were carried on in Huntington Hall, which was kindly placed at the disposal of the Association by the Faculty of the Massachusetts Institute of Technology.

No formal business was transacted at this meeting of the Association. It was deemed expedient to defer the consideration of the routine affairs of the Association until the meeting of the General Council early in the fall.

CONSTITUTION, BY-LAWS,
LIST OF OFFICERS, MEMBERS, ETC.,
OF THE
American Social Science Association
SEPTEMBER, 1904.

CONSTITUTION.

I. This society shall be called the AMERICAN SOCIAL SCIENCE ASSOCIATION.

II. Its objects shall be classified in five departments: the first, of Education and Art; the second, of Health; the third, of Trade and Finance; the fourth, of Social Economy; the fifth, of Jurisprudence.

III. It shall be administered by a President, as many Vice-Presidents as may be chosen, a Treasurer, a Secretary, and a Council, charged with general supervision; five Department Committees, established by the Council, charged with the supervision of their respective departments; and such Local Committees as may be established by the Council at different points, to serve as branch associations. *The Council shall consist of President, Treasurer, Secretary, First and Second Vice-Presidents, the Chairman and Secretary of each Department, and ten Directors, with power to fill vacancies and to make their own By-laws.* The President, Vice-Presidents, Treasurer, Chairman, and Secretaries of Departments, and Directors shall be chosen annually by members of the Association, and shall hold office till their successors are chosen. The President, or in his absence a Director, shall be chairman of the Council. The Chairmen of the Local Committees shall be chosen at the pleasure of their respective committees. Whenever a Branch Association shall be organized and recognized as such by the Council, its President shall be *ex officio* one of the Vice-Presidents of the American Association, and, together with the Secretary and Treasurer, shall be entitled to all the privileges of membership in that Association. And, whenever a Local Department shall be organized and recognized as such by the Council, its Chairman shall become *ex officio* a member of the parent Association. The Chairman and Secretary of each Department, with the consent of the President of the Association, may appoint such special Department Committees as they may think best. The General Secretary shall be elected for three years, unless he resigns, or is removed by a two-thirds vote of the members present and voting in a regular meeting of the Council; and out of his compensation he may pay the salary of an Assistant Secretary, who may also be Secretary of one Department.

IV. Elections to membership shall be made by Standing Committee appointed by the Council in such manner as Council may provide. Any person so elected, and on payment of annual membership fee of five dollars, may continue a member by paying annually such further sum as may be fixed at the Annual Meeting of the Association, not exceeding ten dollars. On payment of one hundred dollars any person may become a life member, exempt from assessments. Honorary and corresponding members may be elected and exempted from the payment of assessments.

V. The Council shall have sole power to call and conduct General Meetings, and to publish the Transactions and other documents of the Association. The Department Committee shall have power to call and conduct Department Meetings.

VI. No amendment of this Constitution shall be made, except at an annual meeting, with public notice of the proposed amendment.

BY-LAWS OF THE ASSOCIATION.

[NOTE.— At a meeting of the Council of the Association, held May 9, 1900, at Washington, a committee of three was appointed to revise Constitution and formulate By-laws to be considered and adopted by the Council at the earliest opportunity. That committee consisted of the Hon. S. E. Baldwin, the Hon. Francis Wayland, and the General Secretary.

At a subsequent meeting of the Council of the Association, held in New Haven, Conn., Oct. 12, 1900, this committee reported the following By-laws, which were *unanimously* adopted by the Council. Since the Constitution confers upon the Council power to enact its own By-laws, no further action by the Association is necessary.]

ARTICLE I.

ORDER OF BUSINESS.

The following order of business shall be observed at all meetings of the General Council of the Association :—

- | | |
|----------------------------------|---------------------------|
| (a) Reading of minutes. | (d) Report of committees. |
| (b) Report of Treasurer. | (e) Unfinished business. |
| (c) Report of General Secretary. | (f) New business. |

ARTICLE II.

QUORUM.

The quorum of the Council at all regular and special meetings shall consist of five members, of whom three shall be of the *ex-officio* members of the Council.

ARTICLE III.

VACANCIES.

SECTION 1. A committee shall be appointed on the first day of the general session of the Association to nominate officers, and such committee shall report upon the morning of the last day of the general session.

SECT. 2. The President may fill any vacancy occurring during the year in any office.

ARTICLE IV.

AMENDMENTS.

The By-laws of the Association may be altered, amended, or repealed by the Council at any meeting by a two-thirds vote of the members present.

ARTICLE V.

TREASURER.

SECTION 1. It shall be the duty of the Treasurer to forward bills for annual dues on the first day of January of each successive year, and to meet all bills for printing, publishing, salaries, etc., on presentation of vouchers approved by President or First Vice-President, and the General Secretary.

SECT. 2. No funds shall be set apart for permanent investment without vote of Council; and all funds so set apart may be invested by the Treasurer at his discretion.

SECT. 3. The President or First Vice-President may draw on the Treasurer in favor of the General Secretary at any time for such sums, not exceeding one hundred dollars at any one time, as the President or First Vice-President may deem necessary to meet any proper expenses incident to the management of the Association or the proceedings of the Committee on Elections to Membership.

ARTICLE VI.

PRINTING.

SECTION 1. The selection of papers for publication in the *Journal* shall be left with the President and General Secretary, the latter serving also as editor of the *Journal*, and with the Heads of Departments. The Chairman of each Department will indicate to the General Secretary what papers, in his judgment, are available for publication in the report of proceedings.

SECT. 2. It shall be the duty of the General Secretary to print and distribute such information concerning the objects and purposes of the Association as may be useful in securing new members.

SECT. 3. It shall be the duty of the General Secretary to publish and distribute a cloth-bound copy of the annual *Journal* of the Association to each member in accordance with provisions under article referring to *Memberships*. Each essayist will be entitled to twenty-five reprints of his paper at the expense of the Association, on condition that his application is placed on file prior to the printing of his paper.

SECT. 4. If, in the judgment of the Treasurer and General Secretary, the funds of the Association will not justify publication in cloth, the current edition of the *Journal* shall appear in paper. The uniform date of publication shall be within six months of the Annual Meeting of the Association. Distribution of the *Journal* shall be effected as soon thereafter as possible.

ARTICLE VII.

MEMBERSHIPS.

SECTION 1. Elections to membership shall be made in accordance with provisions contained in Article IV. of the Constitution.

SECT. 2. After initial payment of assessment fee, all members in arrearages for the next following fiscal year of the Association shall not be entitled to the *Journal*. Failure to remit annual dues for two consecutive years shall result

in loss of membership in the Association. The General Secretary, however, may exercise his discretion as to the application of this rule in given cases.

ARTICLE VIII.

SALARIES.

The General Secretary shall be paid the amount of his salary in quarterly instalments upon the first days of October, January, April, and July, respectively; and he shall draw upon the Treasurer at his discretion such sums as may be allotted by vote of Council for clerical assistance.

OFFICERS OF THE ASSOCIATION.

1904-1905.

President, JOHN GRAHAM BROOKS, Cambridge, Mass.

Honorary President, FRANK B. SANBORN, Concord, Mass.

First Vice-President, HON. OSCAR S. STRAUS, LL.D., New York City.

Second Vice-President, HON. FREDERICK J. KINGSBURY, Waterbury, Conn.

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President CHARLES W. ELIOT, LL.D., Cambridge, Mass.

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COL. JACOB L. GREENE, Hartford, Conn.

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Prest. DANIEL C. GILMAN, LL.D., Baltimore, Md.

HON. WILLIAM T. HARRIS, LL.D., Washington, D.C.

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HON. CARROLL D. WRIGHT, LL.D., Washington, D.C.

Prest. J. B. ANGELL, LL.D., Ann Arbor, Mich.

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HON. JOHN EATON, Washington, D.C.

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MRS. CAROLINE H. DALL, Washington, D.C.

GRACE PECKHAM MURRAY, M.D., New York.

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PROF. GEORGE L. RAYMOND, L.H.D., Princeton, N.J.

MRS. VIRGINIA B. MCKELWAY, Brooklyn, N.Y.

HON. C. A. WOODS, Marion, S.C.

REV. JOSEPH ANDERSON, D.D., Waterbury, Conn.

General Secretary, FREDERICK STANLEY ROOT, M.A., 291 Orange St., New Haven, Conn.

Treasurer, W. C. LEGENDRE, 59 Wall St., New York.

Department Officers.

I. *Education and Art.*—MR. S. T. DUTTON, New York City, *Chairman*; MR. JAMES P. MUNROE, Boston, Mass., *Secretary*.

II. *Health.*—SAMUEL H. DURGIN, M.D., Boston, Mass., *Chairman*; DR. HIBBERT W. HILL, Boston, Mass., *Secretary*.

III. *Social Economy.*—JOHN GRAHAM BROOKS, Cambridge, Mass., *Chairman*; HORACE G. WADLIN, Boston, Mass., *Secretary*.

IV. *Jurisprudence.*—HON. CHARLES BULKLEY HUBBELL, New York City, *Chairman*; PROF. ISAAC FRANKLIN RUSSELL, New York City, *Secretary*.

LIFE MEMBERS.

Extract from Constitution: "On payment of one hundred dollars any person may become a Life Member, exempt from assessments."

Angell, Mr. George T., 19 Milk St., Boston, Mass.	Letchworth, Mr. W. P., Portageville, N.Y.
Baldwin, Hon. S. E., LL.D., New Haven, Conn.	Libbey, Mr. Jonas M., New York City.
Barnard, Mr. James M., 140 Beacon St., Boston, Mass.	Sanborn, Hon. Frank B., Concord, Mass.
Barnard, Mrs. James M., 140 Beacon St., Boston, Mass.	Sanborn, Mrs. Louisa L., Concord, Mass.
Blatchford, Mr. J. S., Boston, Mass.	Smith, Prof. Goldwin, LL.D., Toronto, Canada.
Bradford, Mr. Gamaliel, 502 Beacon St., Boston, Mass.	Stokes, Mr. Anson Phelps, 45 Cedar St., New York City.
*Cole, Mr. W. A., New York City.	Stokes, Mr. I. N. Phelps, 47 Cedar St., New York City.
*Dike, Mr. Henry M., New York City.	Stokes, Mr. Thomas, 47 Cedar St., New York City.
Dodge, Mr. Charles C., 33 Broadway, New York City.	Straus, Hon. Oscar S., 42 Warren St., New York City.
Dodge, William E., Jr., 99 John St., New York City.	Villard, Mrs. Henry, 145 W. 38th St., New York City.
Eliot, Mrs. Samuel, Boston, Mass.	Ward, Mr. J. Q. A., 119 W. 52d St., New York City.
Endicott, William, Jr., Boston, Mass.	Ware, Mr. William R., 130 E. 27th St., New York City.
*Farwell, Mrs. A. G., Boston, Mass.	White, Hon. Andrew Dickson, LL.D., Berlin, Germany.
Hermann, Mrs. H., 59 W. 56th St., New York City.	Wolcott, Miss Ella L., Elmira, N.Y.
Hoyt, Hon. J. W., The "Victoria," Washington, D.C.	Young, Mr. J. Edward, 130 William St., New York City.
James, Hon. D. Willis, 45 Wall St., New York City.	
Kingsbury, Hon. Frederick J., Waterbury, Conn.	
*Lawson, Rev. Albert G., Camden, N.J.	

[Names marked with (*) cannot be found by post-office officials.]

HONORARY AND CORRESPONDING MEMBERS.

In America.

Moncure D. Conway, Esq., 22 E. 10th St., New York City.
Prof. J. Irving Manatt, 15 Keene St., Providence, R.I.
Major-Gen. O. O. Howard, Burlington, Vt.
Edmund A. Meredith, Esq., care The Toronto Income Trust Co., Yonge St., Toronto, Can.
Hon. Domingo F. Sarmiento, Buenos Ayres.

In Great Britain and Ireland.

Sir Walter Crofton, The Close, Winchester.
Lord Radstock, London.
Henry Dunning McLeod, Esq., Oxford and Cambridge Club, London.
Alfred Field, Esq., Birmingham.
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Prof. James Bryce, M.P., London.
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In France.

M. August Laugel, 12 Rue de la d'Anjou, Paris.
M. Émile Cacheux, 25 Quai St., Michel, Paris.
*M. Émile Trelat, Paris.
M. F. Buisson, Bd. 163 Montparnasse, Paris.
M. Émil Levasseur, 24 Rue Monsieur le Prince, Paris.
M. Arthur Raffalovich, 19 Avenue Hoche, Paris.
M. Pierre Claudio Jannet, 22 Rue Oudinot, Paris.

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Signor Martino Beltrani-Scalia, Rome.
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*Prof. Alberto de Errea, Cavaliere della Corna d'Italia, Venice.

In Belgium.

*M. P. Buls, Brussels.
M. Van de Rest, Brussels.

[The names on this list marked with a (*) are those of persons who cannot be found by post-office officials.]

LIST OF ANNUAL MEMBERS, 1901.

NOTE.—With reference to this statement some explanations are essential, and these are as follows:—

1. The National Institute of Arts and Letters is organized under the auspices of a National Social Science Association, and now an independent body, still retaining a certain connection with the Association in the form of Associate Membership. The following clauses have been passed at the Chicago meeting of the Association relative to existing charts:—

1. The regular members of the Institute receive their Associate membership of the Association without fee, and are entitled to make members of the Association Associate Members of the Institute.

2. The so designated such Associate-members are marked with A. In the history of Academic titles such privilege given as is known. Members are requested to inform the Committee with the editor of once respecting Academic titles and their correct use and which may be found upon the list of all designations should also be promptly reported to the General Secretary, Chicago, Ill., New Haven, Conn.

Adams, John, 100 Madison Ave.	Allen, Thomas, 12 Commonwealth Ave., Boston.
Adams, John, 100 Madison Ave.	Allen, Miss Tom, 17 W. 13d St., New York City.
Adams, John, 100 Madison Ave.	Allen, William A., Madison, Neb.
Adams, John, 100 Madison Ave.	Allison, Hon. W. E., 111 N. St., Washington, D.C.
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Adams, John, 100 Madison Ave.	Ashley, Prof. Clarence D., LL.D., N.Y. Un. Law School, New York.
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- *Blum, Robert F., 90 Grove St., New
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- Blumer, G. Alder, M.D., Butler Hos-
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- Bowles, Samuel, Springfield, Mass.

- Boyde, David R., Norman, Okla.
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NECROLOGY.

During the past year the Association has suffered the loss of notable members long and honorably identified with its history and development,—men whose contributions to the literature of social science and whose counsels in the direction of the affairs of the Association will be treasured in the memories of their co-workers. Among these may be mentioned Hon. Francis Wayland, LL.D., Hon. Charlton T. Lewis, LL.D., Colonel H. M. Boies, Hon. Seymour Dexter,—men not only well known in their respective communities, but of wide repute in special fields of sociological investigation. The following tribute to the memory of Judge Wayland was read by F. B. Sanborn, honorary president of the Association, at the Boston meeting of the Association:—

Hardly any of the ladies and gentlemen who hear me can remember, I think, when our genial, talented, and philanthropic friend, Judge Wayland, was not a member of the American Social Science Association. But a few of us can by an effort which takes us back into that misty and germinating spring-time of our society, so much like these growing and glowing days of May, when youth could be predicated of some of us, and when the spirit of youth animated those who had passed beyond the extreme boundary of that period in life. He did not, I think, participate, except as an auditor, in the general meeting we held at New Haven in October, 1866, when his neighbor, Professor Gilman, at that time, and President Woolsey were prominent in our debates. But about ten years later, if I remember aright, he joined us at Saratoga, and soon came to be the head of our Department of Jurisprudence, in which he continued active until infirmities beset him, and deprived us of his cheering presence at our gatherings, whether of the whole Association or of the Council, in which he was always active and efficient. In all, then, for more than a quarter-century he was of us and with us, and for three years was our President. No man has rendered such long and so efficient service to the cause of social science as Dean Wayland; and

the title he bore in the Law School, to which he was daily and hourly devoted, might well have been given him in our body,—he was the *Dean of Social Science*.

Yet, when it is asked what written work remains to testify of his service or what institution can be pointed to as his creation, his friends might hesitate a moment for an answer. I suppose the Law School at New Haven could never have been what it is but for him, yet it existed before he put his energetic hand to the work of its reorganization. He wrote readily, logically, wittily, and constantly, yet never concentrated his efforts upon a particular task of literature, ethics, or jurisprudence. He did not seek political distinction or the glory of the successful orator. He allowed others, far inferior to himself in all that constitutes fitness for public duty, to pass him in the dusty race-course for municipal and national honors. Partly this might be for the reason that the American way of life, so toilsome to many, especially in his chosen profession, was made easy to him by favoring circumstances, and he was not called upon to put forth those exertions which lead to professional distinction. He early reached that life of leisure which is the professed goal of educated men, and he had something of those leisurely habits which naturally result. But along with this capacity for leisure there existed in Wayland's conscience, from inheritance and upon principle, something which kept him ever awake to the call of moral duty. It was not that sensitiveness which Matthew Arnold so strikingly pictures or suggests in the nature of his friend Arthur Clough:—

"Some life of men unblest
He knew which made him droop and filled his head;
He went, his piping took a troubled sound
Of storms that rage outside our happy ground;
He could not wait their passing—he is dead."

No, Wayland was susceptible to many impressions, but not to the melancholy of poets. He was cheerfulness itself, and had such robust faith in the Ruler of the universe that he had no temptation to despond. His was that nobler uneasiness which springs from a wish to share with others the good for which one is devoutly thankful, but does not ascribe to any surpassing merit in himself. Also, he had that sense of duty

to the community which finds its best expression in rendering unpaid service to the land and the people among whom our lot is cast. Wayland would not sourly abstain from the good things of this world, but would take some pains that others should have their share. He had, too, in a milder form that quality which General Jackson once tersely expressed, in trying to save one of his friends from the reproach of being thought quarrelsome. "My friend, Patten Anderson, sir" (to the lawyer who was cross-examining him, and with a piercing glance intended to point the remark in that direction), "was the natural enemy of all *scoundrels*." The crookedness and depravities of his fellow-beings excited in Wayland a mixture of disgust and animosity which loathed the sin, but viewed the sinner with compassion. Hence he was well at home in his position of reforming prison discipline, and disposing, once for all, of the vicious tramp.

It was in a report on tramps to the Conference of Charities at Cincinnati, in 1878, if I am not mistaken, that I first came into fraternal co-operation with Judge Wayland. The meeting was a joint one of this Association and the conference,—the last we ever held in that combination,—and we were hospitably entertained by the good people of Cincinnati, with their happy blending of Southern courtesy and Northern ideality. There for the first time I came to appreciate Wayland's noteworthy social gift. Our mutual friend, Frank Bird, the Warwick of Massachusetts politics, used to say that his own chief talent was to get a dozen good fellows together round a dinner-table; and Wayland had the same art. It must include, however, to suit his taste, a fair representation of agreeable women; and our Association owed much to him, for twenty years, in bringing to our meetings, for the reading and discussion of papers, so many brilliant and charming women. Saratoga was his chosen field for this; and he held us there during his presidency and for ten years after by this annual attraction of the gentler sex, instructing us about health and education, and rendering the small *tables d'hôte* at the United States Hotel, sparkling with wit and grace in conversation. We miss this amiable element now for several years, and I hope it may be restored to us by Wayland's successors.

I was long associated with him in this career, not of glory,—ah, far enough from that,—but of social service to our country. As we were leaving Saratoga for the last time, after one of our week's sessions there,—for Wayland seldom contented himself with less than a week,—he said to me: "We have kept this up for a long time. How much longer can we hope for it?" A few years more were allotted to us,—at New Haven and at Washington,—and then the curtain fell. An incapacitating infirmity came upon him. He endured it with the same good cheer that had marked his days of strength and activity; and his light went out at last, as it had shined for a lifetime, beaconing the way for others less fortunate, but with no premature darkening of its rays.

"Yes, thou art gone! and round me, too, the night
In ever-nearing circle weaves her shade:
I see her veil draw soft across the day,
I feel her slowly chilling breath invade
The cheek grown thin, the brown hair sprent with gray;
I feel her finger light
Laid pausefully upon Life's headlong train;
And hope, once crushed, less quickly springs again.

"And long the way appears, which seemed so short
To the less practised eye of sanguine youth;
And high the mountain-tops in cloudy air,
The mountain-tops where is the throne of Truth:
Unbreachable the fort
Of the long-battered world uplifts its wall;
And strange and vain the earthly turmoil grows,
And near and real the charm of thy repose,
And night, as welcome as a friend, would fall."

We shall be fortunate if, when that night shuts down, it finds us as useful in our generation and as sincerely lamented as the companion of our toil and pleasure, whom Mr. Kingsbury has so well portrayed in his communication.

The communication from the pen of Hon. F. J. Kingsbury, referred to in Mr. Sanborn's paper, is as follows:—

Since our last meeting this society has sustained a serious loss in the death of one of its life-members, the Hon. Francis Wayland, LL.D., of New Haven, Conn. Dr. Wayland was

the President of this society for three years and Chairman of the Department of Jurisprudence for more than a quarter of a century. He never missed a meeting when in the country until detained from the last two by illness.

He had a genius for organization. He was always one of the earliest to get the work of his department provided for, and that in the most satisfactory manner.

At our annual meetings he was early on the ground, and took an active interest in all matters of detail connected with the meetings.

His commanding figure, his genial bearing, his sound sense, and his keen humor were conspicuous among the attractions of our society.

Those of us who knew him best will not perhaps miss him long, but to those who remember him at all it will be a regret to miss his presence and a pleasure to enjoy its memory.

Resolved, That this minute be entered on our records and a copy transmitted to Mrs. Wayland.

At a meeting of the Board of Directors held in New York City, Jan. 13, 1904, this minute, introduced by the General Secretary, was also adopted and ordered on file:—

Resolved, That in the death of Hon. Francis Wayland, LL.D., formerly President of the Association and for many years Chairman of the Department of Jurisprudence, this society has suffered irreparable loss. During the extended period of his connection with the American Social Science Association, Dr. Wayland labored incessantly to promote the best interests of the body whose activities were enlarged and quickened by his unremitting attention to the administrative duties which he performed with signal efficiency, thoroughness, and tact. Even in the years of physical enfeeblement and trial his interest never wavered, and to the last his hope of further participation in the work of the Association did not falter. The members of this Board bear willing and eager testimony to the wise and gracious influence of Dr. Wayland in shaping the executive affairs of the Association, so as to promote not only inward harmony, but also that concerted and far-reaching effort which should characterize an organization national in scope. His presence and words inspired both confidence and courage to undertake achievements wholly in consonance with the recognized aims of the American Social Science Association, and he assumed whatever burden was laid upon him with a cheerful promptitude which served as a constant stimulus to his associates. In his death we are deeply and painfully conscious of a strong prop withdrawn, and

his memory will be tenderly cherished as the memory of a loved and honored associate ever foremost in labors for the upbuilding of his fellow-men into the larger stature of manhood.

From the columns of a Scranton (Pa.) newspaper we are privileged to insert this editorial summary of the rare personal qualities of Colonel Henry M. Boies, for some years a member of the American Social Science Association:—

HENRY M. BOIES.

To what was said Saturday in the hurriedly prepared but yet very accurate sketch and estimate of Colonel Boies little remains to be added, except to point out some of the qualities of the man which make his loss so keenly felt.

He was a rare combination of the captain of industry, the student, the social reformer, and the militant Christian gentleman. Seldom do we find in one person so many elements of force and distinction. In each of these sides of his character he was not content to be inconspicuous: he led. Nor was his leadership prompted by mere egotism or the love of men's applause. It was due to unfailing energy, inexhaustible moral courage, and to the consciousness of the obligation which he owed to his fellow-men. He had been blessed with wealth, and he used it to do good. He had been blessed with natural ability of a high order, and he cultivated his talents and gave the benefit of them freely to the community. He did not know the meaning of the word "compromise" where a principle was involved; and yet, with all his firmness and sternness, he was most tender-hearted and humane. By the most of us he is best remembered as the fighter, who poised his lance full against every target of evil that came within his observation, and thrust the weapon forward with unflinching hand. Yet there are hundreds of homes in which his memory is cherished because of kindnesses shown without publicity. As a controversialist he stood with his back against the rock of his conviction and challenged the world, but as a man he held his power and means as a trust for instant accounting at the call of worthy purposes or of human misery or distress.

I. DEPARTMENT OF JURISPRUDENCE.

I. NEW ASPECTS OF EMPLOYER'S WELFARE WORK.

BY JOHN GRAHAM BROOKS, PRESIDENT OF THE ASSOCIATION.

It carries no overstatement to say that thousands of employers are now showing very unusual concern about what are known as Welfare Institutions. "What can I do with my workmen to secure more contentment and stability in my business?" is a question one hears on every hand from first-rate men of affairs. There is scarcely an industrial centre in which specific employers are not either trying some betterment scheme or anxiously brooding over one.

If it is asked why this interest has just now so general a quickening, the answer is probably in the plain facts of more effective trade-union assertion and of general industrial friction so wide-spread and so serious as to compel attention to all practicable possibilities of lessening this waste within the wage system.

Aroused curiosity about welfare work of all kinds is of course only one phase of the new solicitude about the working of our industrial system. Another phase appears in those employers' associations which enter the field with no positive or constructive policy but only to measure their strength against the trade unions.

Other employers' associations recognize the trade unions outright, even though it involve the principle of the closed shop; an absolute unionizing of the business. Through joint agreements, employers and wage-earners work to the common end of deciding together wages, hours, and conditions of service.

Under the principle of collective bargaining, labor disputes the traditional right of the employer to exercise *entire* authority over the business. It is under this joint agreement that there is slowly working out a division of this authority. That

this authority should be divided is now admitted by our highest court decisions, by public opinion, and by hundreds of employers. The feudal and unawakened employer is still fighting for the whole authority; while the newer, more ignorant, and reckless trade unions are asserting a sovereignty over the business that would cripple it if these claims were not checked.

It is between these extremes that the joint agreement is doing its educational service in showing where the division of authority lies between employer and employed; where these dividing lines are to be drawn, so that business enterprise, efficiency, and success shall not suffer.

That the delicate and costly risks of the business are so largely on the side of the employers is proof that his area of rights must be clearly defined and definitely understood by his workers. It is precisely this work which joint agreements are now doing in this country. I note them here because they belong to welfare institutions in their highest form.

This change of opinion about authority among many of those who direct large affairs should be stated together with another opinion which one hears more and more from very able men; namely, that a great deal more information about employers' methods can be given to the workmen without the slightest injury to the business. How much secrecy is still necessary, how much and what kind of information may be imparted, is of course in each business a purely practical question, but that secrecy has been a good deal overworked is now one of the commonest admissions. The statement of this fact has its place in the present discussion because labor under welfare institutions cannot possibly be educated without information about the business, especially information about fixed charges,—information about its risks, its difficulties, the nature of competition, and, as far as practicable, even about the profits.

A successful employer, J. D. Hibbard, president of the Chicago Metal Trades Association, has just said publicly that his association is using the joint agreement to educate their fifteen thousand men on these more obscure business difficulties. He adds, "We are taking them into our confidence in a straightforward manner, and showing them facts and figures."

He says further, "But the employers need education precisely as much as the workmen."

President Eliot reports Agassiz as saying to him long ago that he could not understand why the employers refused these confidential relations with their workmen.

We do not dare any longer to use the French word *patronage*, which is, I think, the only single word which historically stands for what we are discussing. *Patronage* is that extra betterment work done by employers for their workmen. The best writer on *patronage*, Hubert Valleroux, says its origin was in the affable relation of certain Roman patricians toward their *plebs*; but it developed in certain religious and feudal conditions which one may still see in a score of places in Europe where the business is carried on in small and isolated country districts, like the Val de Harm. I have there heard the workmen and women uniformly speak of the employer as *le bon père*, *le bon patron*; and there is a beauty about it, like that of a time-tinted ruin. I wondered what degree of merriment it would arouse among Pittsburg iron workers or Chicago stock-yard men to hear Mr. Frick or Armour seriously spoken of as *le bon patron* or the good father. So far as we are concerned, in this country this feudal tradition of *patronage* is at an end. It dies rapidly in Europe whenever it is touched by city life. Its association with various charity benevolences would alone discredit it.

The American employer has few keener solitudes than to have it understood that he is not a philanthropist. If he puts in bath-rooms, a lunch counter, banking or insurance benefits, he is sure to tell you that it is business, and not sentiment. Any mixture of philanthropy and business is felt to be either very callow or stupid. If he can persuade you that his ventures turn him a good dividend, he is content with his justification. This anxiety not to be thought sentimental is itself a little mixed; but it is extremely wholesome, and marks a great gain toward more democratic relations in the world of business.

I have called this shame at being thought a philanthropist in business confused, because obviously certain employers have a genuine human interest in the lives of their working-people beyond and apart from wage payments, and therefore

give themselves great trouble in doing things that are strictly philanthropic for their employees. I never heard a suspicion, for instance, that the English Cadburys were led to carry out their imposing welfare work merely for business advantage. There are those in this country, like the Cheney's, of South Manchester, of whom it is equally true.

We are, however, on very slippery ground so long as we test this question by the motives that are supposed to guide employers. We cannot in any case know motives, and should in most cases find them bewilderingly mixed. What we can see with some measure of clearness is that the employer desires stability of service. If he is in a country town, he may be driven to welfare institutions to keep his help from yielding to the fascinations of the city. If he is free from trade unions or is too much plagued by them, he may therefore resort to every welfare device which tends to bind his helpers to him by their interests. Some form of bonus on wages, ownership of the home, insurance benefits, free medical care, libraries, clubs, insurance of workman's tools, organized sports, halls for social intercourse, have this tendency to prevent hostile action against the business.

There are also plenty of instances in which employers—but half consciously perhaps—use welfare institutions for the purpose of securing cheaper help, as certain mercantile houses insist that the girls in their employ shall live at home, where their partial support makes it easy to get them at a low wage. Both these motives—to prevent or cripple the trade unions and to get cheaper labor—have played an immense rôle in labor history. It is this history which accounts fully for the ugly suspicion everywhere showing itself among wage-earners that practically all this betterment work is a device to do one of two things,—either to keep down wages or to lessen the independence of the workman. Historically and upon the whole, it has to be said that this suspicion has its justification.

It is precisely here that the employer meets squarely his present-day difficulty. The arduous task is his of making it fairly obvious that he is not trying to cripple labor organization or to check the rise of wages by his betterment schemes. That he is not trying to check the rise of wages may be easily shown. It is far harder to show that his improvement plans

are not aimed at that form of labor independence that is secured through the recognized principle of collective bargaining.

It is perfectly fair game for the employer to use welfare institutions to beat the unions, if he *can*. There are industries and country districts where this is easily possible for so long a time as to make the game worth playing. Barring these exceptions, the hazards are too great. Over the general field on which organized labor has come to stay, no wise employer will enter upon this tilt as his chief purpose. No one will be so quick to know and to resent the scheme as the workmen themselves. The employer cannot moreover take one successful step further than that which secures a sympathetic co-operation of labor.

I have known three employers who built churches for their helpers, but in each case those for whom the edifice was intended never showed the slightest interest in the church. I have known restaurants, schools, stores, libraries, all to fail miserably for the same reason.

Even if it be the devil's own work, the trade unions have created a spirit of independence which makes it very awkward for the employer to bestow any sort of gift on labor. There is instant suspicion that it means a lessened independence. Few phrases are oftener on their lips than the classic line, "Beware of the Greeks bearing gifts."

I come now to what seems to me the *crux* of the difficulty. *Patronage* began by doing everything for the laborer. Largely out of the democratic spirit of 1848 in Europe, we find a change in the most enlightened patronal work, which appears in attempts to give labor a conscious and directive part in the business. Whether it be profit-sharing, clubs, sports, insurance, co-operative stores, restaurants, success has gone about as far as *this conscious and directive voice of the workman* in some phase of the business has been recognized.

In every coming day, success in welfare work will be more difficult without this participation of labor in the scheme. A Chicago employer, full of good will, confidently starts a lunch counter, and is indignantly amazed that his men and women go to his cheaper and better food very grudgingly, and insist that they shall be waited upon, in spite of the fact that they had been going to an outside restaurant where they

waited upon themselves. The employer finally threw the whole management upon committees of his employees, who have made it a success. They then at once agreed to wait upon themselves. Something strikingly like this is reported to me by a member of this Association as occurring in his own business.

Where, then, may one draw the line of possible progress more definitely and more delicately in touch with that spirit of labor independence from which, for good or ill, we never again shall be free?

Every rise in sanitary appliances, every organization to satisfy the sport instinct, the hall of recreation, and libraries, lectures, and music have their own excellences, and will more and more be used as a constituent part of far-seeing business management. Yet, as coming directly from the initiative of the employer, they clearly do not meet all the requirements or the highest and most pressing requirements. Nothing less than some conscious and directive part in the business on the side of labor rises to the need of the hour.

To say where and how this voice of labor in a specific business shall be recognized is pretty nearly the only great question in welfare work. Nothing of first importance is done which leaves this out. Most employers, hearing this statement for the first time, pronounce it hopelessly impracticable. I have heard it scouted by employers who were actually beginning to practise the thing they flouted. That labor's voice in the business cannot begin with the market side of the enterprise—with buying, selling, and initial direction—is too clear for discussion. Here are the highest and hardest tests of business capacity; here are the test of industrial ventures; here the great risks culminate. Town-meeting interference at this point would open every door to swift disaster. I assert without hesitation that the strongest and best trade unions in this country have been educated to understand this and the reasons for it. Especially where the joint agreement has been adequately tried, have the leaders learned how supremely difficult this chief part of business management is.

There are, however, other sides of business where the voice of labor may safely have organized expression. The proof is that at a hundred industrial centres one may now see this

working with hopeful efficiency. Let me give two illustrations, the first to show this work in its earlier and tentative stages, the second to show it far advanced.

The first is the Williams manufactory for drop forgings in New York City. Some ten years ago a room fifty feet in length was built upon the roof.

Eleven shower, or rain, baths are erected on one side of the room. Each chamber, with a space three by five feet, is large enough for a workman to move about with ease while enjoying the overhead spray that is connected to pipes conveying hot and cold water. . . .

Another laudable innovation connected with the establishment is its tool insurance. In its fire insurance policies the company includes a sufficient amount to cover the hand implements used by its workmen. Some of these tools kits are quite valuable, and to each owner a free policy is issued by the concern to protect him against the loss of his property by fire.

There is a *branch* of the Brooklyn Public Library in the works; and the men are permitted to borrow books and magazines, which they read at home.

Twice a year *prizes* aggregating \$100 in cash are awarded to employees for best suggestions relative to management, manufacturing, or anything pertaining to the business. The first prize is \$50, the second \$25, the third \$15, and the fourth \$10. Excellent suggestions are sometimes submitted, and these are adopted by the company. . . .

The *society* has a *regular physician*, who is paid \$1 per year for each of the 223 members at present in affiliation with the association. He is under agreement to promptly attend sick cases, and to report at stated periods the condition of his patients. There is in the employ of the establishment a former drug clerk, in whose charge the management has placed necessary medical and surgical supplies to be applied as a first-aid to employees who may be injured while working. . . .

Concerning accident prevention the company has proceeded beyond the requirements of the factory acts in guarding machinery.

I give this illustration because it contains some of the experience we want. Its carefully devised mutual aid association works through the organized co-operation of the wage-earners, which is at least a beginning of that education which leads toward the ideals of copartnership. But equally important is its intelligent purpose to avoid just grounds of com-

plaint from the trade unions. It has thus far no trade union; but it claims to have the proofs in hand that it does not use piece-work to cut wages, but has voluntarily raised them, as it voluntarily lowered the working hours. The management says its purpose is to work the scheme so that the result shall not appear in any form of paternalism, but progressively through higher wages. Now, if this account, which is authorized officially by the Department of Labor in New York, is to be trusted, it indicates what first-rate management may do in an open shop or even with no union men at all. To surpass the legal standard in sanitation and hours, as well as to meet the prevailing trade-union wage, is to do the chief work for which the trade union stands.

The beginning and end of the trade-union struggle is to secure a higher standard of living for the worker; but, if any employer does this himself, what motive is there to join the trade union? Of course, the trade union answer to this is too obvious to state; yet there is a growing purpose on the part of many high-class employers to meet unionism in this way, and in many cases it is at the present moment succeeding. It is a success which depends, moreover, wholly upon the active co-operating good will of the workmen, the kind of good will without which no really progressive step is possible. For instance, the call for the social secretary is now in the air; but what can this sociological go-between, paid by the employer, accomplish in an atmosphere of hostility? Again, there is much discussion now upon the advisability of throwing a part of the shop discipline upon labor committees; but what could this accomplish without genuine good will all round? The truth is that the large part of welfare work which has about it a single taint of feudal complaisance is no longer worth trying, except in primitive and half-feudal conditions that are fast passing away.

The second illustration carries the purpose and spirit of this work to a far higher point of effectiveness. It is the private London Gas Company under the direction of George Livesey, with a capital of thirty-five millions and yearly receipts of nearly seven millions. Thomas Livesey, the father, began, amidst much jeering of business associates, by giving with pay an annual week's holiday. This was increased to a fortnight

because it was found to work. This was followed by sick and superannuation funds. About 1890 profit-sharing began; and in 1894 a further step was taken, which may be described in Mr. Livesey's phrase: "Profit-sharing is only a half-way house to copartnership." This was the admission of workmen on the board of directors.

The stages which led to this may be put in his own words:—

First, the agreements for a fixed term of service.

Second, profit-sharing, creating a union of interests.

Third, shareholding, or partnership in the profits and risks.

Fourth, "workmen directors," or partnership in control.

The last statement I have seen from him contains these words:—

We have had for the last six years a joint committee of workmen elected by ballot, and an equal number of officials nominated by the directors to manage the profit-sharing scheme; and they have at the same time dealt with any other questions relating to the workingmen that had arisen.

I have heard this man called one of the ablest men in England. I give it here as one of the boldest attempts to bring a great business into harmony with the whole political and social life of the time.

Nor is this instance of Mr. Livesey any longer very exceptional. In fundamentally different businesses, under all sorts of conditions, the voice of labor is as distinctly and as systematically recognized as in the case just given. It may be in the control of the co-operative store connected with the business; it may be in the restaurant, in the clubs, in the insurance funds, in trade schools for the children of the employees.

At some point it is probably possible in most businesses to make a cautious, wholly practicable beginning, though it be on the very outer edges of the business. A New England mill-owner tells me, "I am now struggling with this problem: 'Where can I begin to throw responsibility on to labor committees, so as to give them some voice at safe points?'" He admits the principle that labor should have as much copartnership as is consistent with effective management. He ad-

mits that these limits can only be tested by progressive experiment.

The well-known Paris store, the Bon Marché, with its three thousand clerks, has developed this democratic method, so that its working success was undisputed for a generation. One of the three or four largest retail merchants in this country, in speaking of that store, said to me, "I like my own store better; but I agree that such voice in the business as is given at the Bon Marché educates the whole body of clerks, and my method does not." To this final test of education every feature of welfare institutions must submit.

To come back, then, to the simple and more practical task which, though it may start with the employer, must have for its success the willing and active support of the wage-earner. As in so much other human work, it has become clear that, if habits are to be changed, the young offer the most promising material. Whether unionism is there or not, no step has more hope in it, especially in the country, than that among the youths and children of the workers, such as manual and technical instruction, lessons in domestic science, and, perhaps better than all for a beginning, school and home gardens. In the country no part of this work offers so much as these gardens. Allied to school and home, this gardening correlates with every branch of domestic science. It correlates with the savings-bank and benefit features. It is naturally a part of all artistic plans. The country business has its own considerable market where the youth can sell the produce raised to common advantage. This is no longer Utopian. With proper guidance and instruction it is more and more done.

Finally, it is very improbable that schemes here discussed can have anything like adequate growth in certain highly organized industries without further and different sacrifices on the part of the directors of business.

Where trade unions are strong and still increasing, the most imperative need is organization of employers that shall fairly match the power of the unions. This is not to decry these benefits or to postpone them, but to make it clear that stability is not to be generally won and long maintained unless an aggressive labor organization is met by an equally masterful employers' association.

The great principle of collective bargaining now accepted by economists and by a large portion of the business world is but half complete, if the trade unions only practise it. When associated employers also practise it, the full educational power of the principle will appear.

With employers organized on a level of strength equal to the unions, labor can co-operate in every phase of betterment plans. It can have its part in selecting the coming social secretary, so that he or she shall be as much its agent as the agent of the employer. With this complete organization much of the discipline may be transferred to labor committees.

This larger question is noted here because our subject can be but half discussed apart from this increasing need of employers' associations,—associations, moreover, that shall have sanity and insight enough to understand that they are not merely to crush out the trade unions, but to learn to work with them without practising or submitting to abuses. Questions like those of piece-work, overtime, the open shop, apprentices, hours of work, etc., have more and more to be worked out, not apart, but together. The employer is handicapped; and a strong union (where it acts through new locals) almost certain to be tyrannous unless it is met by some power equal in resources.

Employers' associations are now developing rapidly throughout the country. Where they have no social or constructive policy, as in Colorado and San Francisco, they are driving unions straight into a dangerous political socialism. When employers co-operate with unions through the joint agreement, they are educating themselves and their laborers to act more and more from a point of view larger than that of the individual or the class. Under the joint agreement the way is being slowly prepared for welfare work at its highest and at its best, that which gives strength, sobriety, sense of responsibility, to the entire group engaged in a specific industry. If anything is to save the future of industry from brutalities, from stoppages, shocks, and all the wretched waste and damage of warfare, it is this slow and cautious enlargement of the laborer's voice in what is also in part his business. We cannot continue to have at the same time more and more political democracy and less and less industrial democracy.

It seems to me the really great task of welfare institutions to prove by experimentation that, however gradual the process, labor is being strengthened and educated into conformity with those democratic ideals that we have socially, religiously, and politically accepted as final facts. Though a dainty man of letters, Matthew Arnold had extraordinary insight into the thing called democracy. I close with a few of his words:—

If experience has established any one thing in this world, it has established this: that it is well for any great class or description of men in society to be able to say for *itself* what it wants, and not to have other classes, the so-called educated and intelligent classes, acting for it as its proctors, and supposed to understand its wants and provide for them. They do not really understand its wants, they do not really provide for them. A class of men may often itself not either fully understand its own wants or adequately express them; but it has a nearer interest and a more sure diligence in the matter than any of its proctors, and therefore a better chance of success.

In that spirit, welfare work must find the limits and measure of its success.

2. TRUSTS.

BY HON. WILLIAM J. GAYNOR, JUSTICE OF THE SUPREME COURT
OF THE STATE OF NEW YORK.

Cromwell bluntly said, ‘‘If there be any one that makes many poor to make a few rich, that suits not a commonwealth.’’ He condensed into a homely sentence all that had been said on the subject from the time of John Ball of the Peasant Revolt to the execution of Charles I. You could not add a word to it if you tried. The same sentiment seems to be as uppermost to-day as it was when Cromwell expressed it, and nothing has evoked and even inflamed it so often and so much during the last ten years as the growth of commercial trusts. In the discussion of the subject all of the dark and sinister prophecies and forebodings of national ruin seem to have come forth from their lurking-places. But, after all is said and done, no sensible man who is correctly informed of the past can take a morose or desponding view of the present or of the future. We are better off than we ever were.

THE PRIME OBJECT OF GOVERNMENT.

Society is organized at all only for the common weal. The prime object of government is to promote distributive justice to all. The government which hinders that object instead of helping it, the government which by favoritism of the laws helps the few to aggrandize themselves out of the toil and product of the many, has no right to exist. Government is for the general good and prosperity. Prosperity depends not merely on the amount produced, but in even greater degree on how the total product is divided. Prosperity is the highest production which the community is capable of, consistent with the mental, spiritual, and physical education, growth, and health of its members, accompanied by a just distribution of the total product among the producers. This does not mean share and share alike, but according to the intelligence, the

skill, the industry, which measures the productive capacity of each. He who produces most, whether his productive power be mental or physical or both, should share accordingly, and so on down. This system rests wholly on individual competition, without government favor to any; and competition is the mother of excellence and growth in commerce, in the arts, and in all things. But, if the total product be not justly divided among the producers in the ratio of their productive capacities, then there is not a state of general prosperity, however large the total product may be. And, if that condition be the result of the favoritism of government or of the laws, then has government failed at the one fundamental reason for the existence of government. These principles are accepted by all, and their mere statement suffices.

TO GOVERN LEAST IS TO GOVERN BEST.

The most sacred duty of government, therefore, is to take care to pass no statute and to do nothing to restrict production or to promote or make possible an unjust distribution of the aggregate wealth created by industry; and in such wealth must be included all public franchises, for their value is created wholly by the combined industry and consequent growth of the community. Next government has to deal with the affirmative problem of passing or not passing statutes to operate in harmony with the general economic laws for the purpose of securing a maximum production and a just division. No one can speak of this latter function of government without hesitation and grave misgiving; for it is not too much to say that, while governments have been entirely successful in the past in making laws and contrivances for the enrichment of the few, they have been up to this hour signally unsuccessful, however well intentioned, in attempting to regulate commerce for the general welfare. The history of such laws is that, instead of good, they have done infinite harm. In this respect history teaches beyond a doubt the wisdom of the political maxim, that to govern least is to govern best. If those who are now clamoring in this country for laws to regulate trade and the use of capital in commerce would read the history of such laws in England (not to mention those of the other European

countries) from the beginning of the sixteenth century to the repeal of all such laws by the great economic movement led by Cobden in the middle of the nineteenth, their voices might be stilled. At all events, they would cease to talk at random; for they would have learned the supreme danger to society of passing economic laws, not merely at random, but in the soberest wisdom and best intention man is capable of. We may soon awake in this country to a full realization that our commercial and industrial evils, whatever they may be, great or small, have their origin in laws we have passed instead of in any failure to pass laws.

HISTORY SHOWS FAILURE OF LAWS REGULATING TRADE.

The demand in this day and generation, the same as in past generations, is for new statutes and judicial decisions to prevent industrial monopoly, or the large aggregations of capital commonly called trusts, or to prevent the real or supposed evils to trade and to society caused by such trusts. Many seem to think that every and any ill can be cured by passing a statute. No greater fallacy ever existed. Before coming directly to the subject of trusts, the demand for government interference and restraining laws with which its discussion is beset, arrests attention; and it is of prime importance to point out from the experience of history the futility and the danger of meddling with the natural course of capital and labor and commerce by legislation and court decision. If any good may come out of it, history thus far does not show it.

Beginning in the sixteenth century, many laws were passed in England against monopoly in all its forms and for the regulation of trade. The popular clamor for such laws was great, just as it appears to be now. Penal statutes were passed against forestallers, regraters, and engrossers, as they were then called. Goods had to be sold in the established market-places. A forestaller was one who bought goods on the way to market or before they were brought to market by the producers. He forestalled the market. It was made a criminal offence to do so. The regrater was one who bought and then sold the same goods in the same market-place for a higher price. This was also forbidden by statute and made a crim-

inal offence. An engrosser was one who purchased food products and stored them up in gross, or engrossed them, as it was called, and held them to sell at his own time at a profit. He was made by statute the most obnoxious criminal of all. He was the arch monopolist. If such laws had existed in the time of Joseph in Egypt, he could not have laid up during the years of plenty for the coming period of famine. But they knew no such folly in those days.

These are only a sample of the statutes passed in England to prevent monopoly and a rise in prices. But they were wholly futile. They could not change the natural course of trade. By hampering it, however, and subjecting merchants to constant penal danger and extra expenses, they did the exact opposite of what was intended; they lessened production, caused an imperfect distribution, made prices unstable, and even brought on famine. The legislature might as well have tried to regulate the seasons. In the words of Macaulay, "In spite of the legislature the snow would fall when the sun was in Capricorn and the flowers would bloom when he was in Cancer." But owing to the teachings of Adam Smith, and under the enlightened leadership of Burke, many of these laws were repealed in 1772. Four years later Adam Smith published his great economic work, "The Wealth of Nations." I never read a line of this incomparable man without mentally saying of him what our Emerson has so finely said of Shakespeare,—“He was a wonder; he struck twelve every time.” But, when the legislature repealed the worst of these laws, the courts of law forthwith placed themselves obstinately in the way of the reform. I need not say that in one way and another courts have done a good deal of that in the world's history. But the decisions of courts have never thwarted the moral sense nor the enlightened purpose of any people, nor permanently changed the natural course of events. The decision of that august court of the Sanhedrim which condemned Jesus to death insured the growth and triumph of Christianity; and the decision of that other august tribunal remanding the negro boy Dred Scott back into human slavery, only hastened the coming liberation of the slave. The English legislature repealed these statutes, but the judges said that the common law had from the beginning been the same as the stat-

utes, and that the repeal of the latter revived the common law. This left the law unchanged; and they continued to try and convict forestallers, regraters, engrossers, and so-called monopolists, the very same as under the statutes. Blackstone says that the common law reposes in the bosom of the judges, and that is where Lord Kenyon and his associates found it after Parliament had repealed the statutes. It had slept there for two centuries without any one knowing it, not even the judges themselves.

Any one curious on the subject should read the trial of Rusby for regrating thirty quarters of oats, before Lord Kenyon in 1799, as it is given in Peake's Reports. "Though in an evil hour all the statutes which had been existing above a century were at one blow repealed, yet, thank God, the provisions of the common law were not destroyed," exclaimed Lord Kenyon to the jury. That "master of moral and political wisdom," as Gibbon calls him, Adam Smith, was denounced by the judge. He had written that the fear of the offences created by the statutes regulating trade was ridiculous, that such offences were no more to be feared than witchcraft. Quoting this, Lord Kenyon exclaimed: "I wish Dr. Adam Smith had lived to hear the evidence of to-day, and then he would have seen whether such an offence exists, and whether it is to be dreaded." Poor Dr. Adam Smith; how little he appeared that day in that court compared with the great Judge Kenyon! But how is it now? Rusby was of course convicted and sent to prison for having sold at a profit a few bags of oats in the same market-place in which he bought them. That Lord Kenyon's inflamed state of mind only reflected the mind of the community was shown by the statement of Rusby's counsel to the jury, that to call a man a regrater or forestaller in those times was to put a wolf's head on him, and offer him as a prey to mankind. To hear some talk, you might think it is the same among us now. But finally in 1846, in response to the great economic movement led by Cobden, Parliament at one stroke did away with all such interferences with trade, whether by statutes or by common law, and English commerce was left to the government of natural laws alone. I cannot do better in quitting the subject than to read to you this passage from Buckle in his

"History of Civilization in England," concerning restraints on trade by law, namely:

Every European government which has legislated respecting trade has acted as if its main object was to suppress the trade and ruin the traders. Instead of leaving the national industry to take its own course, it has been troubled by an interminable series of regulations, all intended for its good and all inflicting serious harm. To such a height has this been carried that the commercial reforms which have distinguished England during the last twenty years have solely consisted in undoing this mischievous and intrusive legislation. It is no exaggeration to say that the history of the commercial legislation of Europe presents every possible contrivance for hampering the energies of commerce.

Happy will it be for the welfare of our time and the next generation if every legislator and every judge before whom questions of legislation and of the administration of the laws in respect of capital and labor and commerce come will have studied or will study the history of the blind, narrow-minded, and futile legislation and judicial decisions of the past on the subject. For the time being they passed for the height of wisdom, only to stand revealed to following generations as the height of folly. They justified the observation of John Stuart Mill, that "it often happens that the universal belief of one age of mankind becomes to a subsequent age so palpable an absurdity that the only difficulty then is to imagine how such a thing could ever have appeared credible."

WHAT A TRUST IS.

But, coming to immediate contact with the subject of modern commercial trusts, we have first to understand what such a trust is. Professor Clark, of Columbia University, says that according to the use of the term in popular thought and speech, it is "any corporation that is big enough to be menacing." But this does not seem to be at all accurate. The term, when first used as a designation for large aggregations of commercial capital, was applied to combinations or partnerships of former competing corporations only. The first commercial trusts of which anything is generally known were the Standard Oil

Trust and the Sugar Trust. The former was formed in 1882, I think, and the latter in 1887. The Standard Oil Trust was made up by a combination or partnership of about thirty-nine different oil corporations dispersed throughout the country, and holding charters from different States. The Sugar Trust consisted of a combination or partnership in the same way of sixteen sugar refinery corporations. Every corporation is, of course, a trust: its property is held and its business managed by a board of trustees elected by the shareholders; but the term "trust," as it has been used from the first in respect of aggregated commercial capital, means not one corporation, but a combination or union of a number of corporations under one control.

HOW THE FIRST TRUSTS WERE FORMED.

The Sugar Trust was formed as follows: The shareholders owning all or a majority of the shares of stock of each of the sixteen separate corporations turned their share certificates over to eleven trustees, and received back from them in exchange trust certificates according to a basis of exchange which had been agreed upon. The whole scheme was expressed in a trust agreement. The trustees, by getting in their hands a majority of the stock of each corporation, became, of course, the absolute controllers of all of the corporations; for they as stockholders elected the directors. The earnings of all of the corporations were massed in a common fund, and divided pro rata among the holders of the trust certificates. In that way the shareholders in the several corporations became entitled to share in the aggregate profits of all of the corporations instead of being limited to the profits of the particular corporation in which they had been shareholders. In a word, the several corporations were completely unified. They were made one business concern, under one management, all competition among them being thus destroyed. The formation of the Sugar Trust was modelled on the Standard Oil Trust, which had been formed several years before.

TRUSTS DECLARED ILLEGAL BY THE COURTS.

The fate of both of these trusts was the same: they were adjudged to be illegal by the courts. The attorney-general of the State of New York brought a suit in the name of the people of the State against one of the constituent corporations of the Sugar Trust to have its charter forfeited for having entered into the trust combination. The final decision on appeal was given by the Court of Appeals of the State of New York in 1890, and may be found in the 121st volume of the reports of that court. The opinion there given for the court by Judge Finch forms an interesting chapter in the literature of trusts. It was decided, in brief, that while individuals could enter into copartnership, corporations could not; and judgment of death was rendered against the offending corporation before the court. While this suit was pending, the attorney-general of Ohio brought a similar suit against the Standard Oil Company of Ohio, one of the thirty-nine constituent corporations of the Standard Oil Trust. The Supreme Court of Ohio also adjudged the combination illegal, and that the offending corporation before it should forfeit its charter and be dissolved unless it withdrew therefrom.

STATE LEGISLATURES THEN PASSED ACTS ENABLING TRUSTS
TO FORM.

These two decisions made all of the trusts, namely, combinations or partnerships of corporations, illegal. They had to dissolve, for it was impossible for them to continue to do business. They were, so to speak, outlawed. They could not do business without the aid of the courts and the laws, and that they could no longer invoke. And this brings us to the most extraordinary chapter of all in the history of these commercial trusts. The courts had destroyed them. There seemed to be an overwhelming public voice against them, on the ground that by getting control of an industry and destroying competition they were enabled to raise the price of their product to the consumers and at the same time lower the price they paid to the producers of the raw material they used. But, unless representative legislative government is a complete failure in

our States, the majority of the people were really not opposed to trusts at all, and the voice of opposition, though loud, was that of a minority. A small minority, as you know, often makes a noise out of all proportion to its size. One strident grasshopper in the angle of a fence makes more noise than the noble herd near by, and the like is true of one strident little demagogue man. If, however, the voice of opposition was that of the majority, then never was majority so grievously betrayed by its representatives in the legislatures of the States; for they forthwith enabled competing corporations to combine under one management, thus making the decisions of the courts inapplicable and ineffective. This was done by passing statutes providing that corporations might be formed to own and hold the stock of other corporations without limit.

In this way the stockholders of any number of corporations were enabled to turn their certificates of shares over to such a stockholding corporation, and receive in exchange the stock certificates of such corporation, which in that way became the one owner and controller of all of such corporations. The process is the very same as that by which several corporations were formerly put in control of the same set of outside trustees in order to be under one control, and which the courts, as we have seen, condemned as illegal. It is by this new device of one corporation owning the stock of other corporations that the Standard Oil Trust and the Sugar Trust, which were dissolved by the courts, and all of the trusts, exist to-day. The courts condemned and destroyed the trusts, namely, all combinations or partnerships of competing corporations: the legislatures straightway enacted laws to enable them to form and exist. What the courts did in destroying them, the legislatures undid by means of enabling acts in their favor. This is certainly all very extraordinary in a representative government, if it be a fact that the majority were opposed to such trusts. And what is more extraordinary still, and so inconsistent as to be grotesque, the same legislatures were engaged at the same time in passing all sorts of so-called anti-trust statutes forbidding combinations in restraint of competition and trade. History furnishes no other record of such inconsistent legislation being passed at the same time. Some will say the legislatures were bought by the trusts. I do not say

so. The future historian would have to laud the legislatures for having been wise and right in providing a device for the combining of competing corporations, if time and the event shall prove that such combinations are not a curse but a blessing, were it not for their contemporaneous statutes which seem to breathe the very contrary as their settled policy.

THE NEW TRUST SCHEME ALSO ILLEGAL.

The next phase of the matter is whether such combinations of competing corporations by means of another corporation holding the stock of each is legal, any more than was the scheme of trustees holding the stock of corporations for the same purpose. This phase has reached development and ripened into a chapter in the legal transmutation of trusts, in the recent decision of the Supreme Court of the United States in what is commonly called the Northern Securities Company case. The case presented was the combination or partnership of two great competing interstate railroad corporations, the Great Northern Railroad Company and the Northern Pacific Railroad Company. They had combined by means of a majority of the shareholders of each turning over to the Northern Securities Company, a business corporation formed in New Jersey for the sole purpose of owning and controlling the stocks and securities of other corporations, their share certificates in exchange for share certificates in such business corporation. In that way the control of both railroad companies passed into the hands of the New Jersey stockholding corporation, and competition between them was thus done away with. The court declared the scheme illegal, and dissolved the combination. The opinions on which the judgment of the court rests, however, show that the decision was based on the fact that the stockholders of the two railroad corporations devised the scheme, and caused the stockholding corporation to be formed, for the preconceived purpose of thereby uniting the two competing railroad corporations under one control, and doing away with competition between them. It is therefore claimed that the question whether the union of several competing corporations under one stockholding corporation, without any preconceived and worked out scheme by their stockholders, would

be illegal, remains undecided. The decision of the court seems, however, to be placed on the corner-stone proposition that under the United States anti-trust statute any combination which destroys or restricts free competition among those engaged in interstate commerce is illegal. It makes no difference in the effect on commerce whether such a combination is brought about by the efforts of the stockholders of the several uniting corporations, or whether it results by the stockholding corporations acquiring a majority of the stock of such corporations gradually, and as best it may, by stock purchases in open market or otherwise. Would there, then, be any legal difference? Suppose the Northern Securities Company had not been formed by the stockholders of the two railroad companies, but by others, and that its directors had conceived and carried out the scheme of getting control of the stock of the two competing railroad companies by purchases for cash, and thus changing them from competitors to allies, would the decision have been different? The question opens up a vast field of questions too complex to yield to hasty consideration, or, as may prove, even to carefully devised statutes and court decisions.

TRUSTS AND LABOR.

There is no doubt that in the beginning the attitude of the trusts was not cordial toward labor. In the Sugar Trust agreement one of the expressed objects of the combination was "To furnish protection against unlawful combinations of labor." The word "unlawful" was plainly to save appearances; for there were and are no unlawful labor organizations, although their objects and methods have sometimes been unlawful. The attitude of labor toward trusts was also one of suspicion, if not hostility, at the beginning. But time and contact have apparently very much changed the feeling of each toward the other, and substituted mutual respect, at least. This is mainly due to the growth and improvement of organized labor, and in a special degree to the improvement of its leadership. No one can deny that many labor organizations have been badly led and advised, but the change for the better in this respect has been steady. Organizations

of capital have also been badly and dishonestly managed and advised. The men who compose the labor organizations are learning the absolute necessity of having wise and discreet leaders. So far has this gone that our labor organizations are becoming centres of economic thought, and their leaders educated economists. The day of the political demagogue is also passing in organized labor. Workingmen have come to understand that their present and future depend on the favor of no one, but wholly on their own growing education, intelligence, and organization. Our system of common schools makes the future theirs. The method of protection against labor organizations contemplated by the clause of the Sugar Trust agreement which I have read was to be able to close up a refinery in which a strike occurred without embarrassment or interruption in production, as all of the other refineries in the trust would meanwhile go on. But this was soon met by the extension of the horizon of labor's organization to equal that of the trusts. The dispersed local labor organizations of the same industry were confederated, and in that way came labor trusts to meet employers' trusts. Confronting each other all along the line in this way, it was inevitable and to be expected that combined capital would come to deal with combined labor, and the result has been beneficial to both sides. Indeed, the declaration of organized capital, which we used to hear so often, that it would not deal with organized labor's representatives at all, but only with the individual worker, is now seldom heard. It had a sound of arrogance which did not suit the American people. Labor has as much right to organize as capital has, and organized capital forgot itself for the time being when it turned its back in the face of organized labor.

ARE TRUSTS INJURIOUS?

To ask whether manufacturing trusts have proved detrimental or beneficial is to evoke a debate in which trained economists divide. It is claimed that they lower wages, raise the price of their product to the consumer, and lower the price they pay to the producer of the raw material which they use. Those who profess to know, including workers for trusts, deny that they lower wages. It is claimed by some labor

leaders that united labor, being a match for united capital, can deal better with prosperous trusts than with many small concerns. In respect of prices, it would seem that destruction of competition must affect them disadvantageously to the consumer and to the producer of raw material to some extent. The economic law is that prices are in the ratio of production. A trust which controls an industry can prevent overproduction and the consequent lowering of prices. But this counteracts an injury to society; for a condition of low prices caused by overproduction is not beneficial, and is often disastrous. If prices be arbitrarily raised beyond a certain point, consumption diminishes; and this natural law, it is said, suffices to prevent trusts from raising prices to consumers beyond the normal economic point. Similarly, if the normal economic price be not paid for the raw material, its production declines, causing the price for raw material to rise. From the working of these economic laws it is said that the doing away with competition can have no substantial or lasting effect on normal prices in respect either of the finished product or of the raw material. I am not an economist, and venture no opinion; but I think it appears to most of us that if a trust be so large as to be the sole or the predominant buyer of the raw material and seller of the finished product, prices at both ends will be affected adversely to society, more or less, at intervals, if not constantly. The temptation, and therefore the tendency, will be for the trust to lower its buying price and raise its selling price; and it will do so, so far as it can. How far it can go without being checked by general economic laws is a most vital and interesting question.

A demoralizing evil is the issuing of bonds and stock shares by corporations, and particularly trust corporations, in excess of the actual value of their capital. This was publicly denounced in a speech by the Lord Chief Justice of England a few years ago as organized robbery of the community, and last year the foremost promoter of such fraudulent schemes in England was convicted and sent to prison. Certain of our newspapers thereupon set up a vulgar clamor for the passing of statutes in this country under which similar convictions could be had, not knowing that to set false values on corporate property for the purpose of selling corporate shares is as crimi-

nal here as in England, and that our penal statutes on the subject are just as broad as those of England. What we need is not more statutes, but such an administration by the courts of those we have as would come from a healthy moral sense in the community at large. Such convictions depend upon judges and jurymen who will convict, and they cannot be expected to have more virtue and fortitude than the community as a whole has. I see no way of removing the evil except by having substantially the same law for all corporations that we now have for banking and financial corporations; namely, requiring that every dollar of the capital stock be paid in in cash at par instead of allowing stock shares to be issued for property, which makes over-valuation easy and inevitable. But it is impossible to get any uniformity in the creation and control of corporations so long as all of the States can separately deal with the subject. To get all of the States to agree upon a system of corporation laws, and then for all to pass only the same laws, as Professor Rogers suggests, is impossible. Many are coming to the belief that the whole subject should be intrusted to the national government.

The evil which many most dread from the trusts is that they corrupt legislatures and officials by the use of money, and in that way are too powerful for government. Their finances compare with those of the United States government. To mention only one, the stock and bonds issued by the Steel Trust amount to nearly \$1,436,722,135, while the debt of the government is only \$901,470,950; it paid out last year in interest and dividends \$58,748,392, while the interest payments of the government were only \$28,556,348; its gross earnings were \$536,572,871, and the income of the government \$560,396,674; its operating expenses were \$409,268,599, and the expenses of the government \$477,542,659; its surplus was \$12,304,916, and the surplus of the government \$14,000,000. Such resources are pregnant with the power and possibilities of the mighty corporations which Hastings and Clive served.

IS LEGISLATION NEEDED?

If the combinations of corporations which we call trusts are injurious to commerce, the only legislation needed to prevent them is to repeal the statutes which enable them to form; for these statutes were passed for the creation of trusts, as I have already stated, after the courts had declared such trusts illegal, and dissolved them, on the ground that corporations could not unite as partners. As Chief Judge Marshall said in the Dartmouth College case (and it has often been repeated):

“The objects for which a corporation is created are universally such as the government wishes to promote. They are deemed beneficial to the country; and this benefit constitutes the consideration, and in most cases the sole consideration, for the grant.”

If the object of these stockholding corporations by means of which the trusts are formed is not beneficial to the community, and therefore such as government should promote, statutes for the creation of such corporations should not be passed or suffered to remain.

SO-CALLED ANTI-TRUST STATUTES.

In 1890 the National Congress passed a so-called anti-trust statute, and the legislatures of the States have very generally passed similar statutes. The United States statute provides that “every contract, combination in the form of trust or otherwise, or conspiracy, in restraint of trade or commerce among the several States, or with foreign nations, is hereby declared to be illegal.” This seems explicit; and yet a question at once arose under it, whether it covered any except “unreasonable” restraints of trade, as is the case at common law. It was explicitly held in the *Trans-Missouri Freight Association* case, reported in the 166th volume of the United States Supreme Court Reports, that it prohibited all contracts in restraint of trade “without exception or limitation,” and is “not confined to those in which the restraint is unreasonable.” This construction was followed several times by

the court in other cases; but in the recent case of the Northern Securities Company, which I have already mentioned, Mr. Justice Brewer, who was one of the bare majority who so construed the act and established its meaning, receded, and expressed the view that only unreasonable restraints of trade were within its intendment. No one can foretell how the question will be decided when it comes up again. If the act be finally held to refer to unreasonable restraints only, then a very uncertain and elastic question of fact is introduced into every case under the act, to be tried by a judge or jury. This would reduce the working efficiency of the act to a low point. Whether a given contract is reasonable or unreasonable will be made "as uncertain as the length of the chancellor's foot," to use a phrase which denoted the varying notion of equity of lord chancellors as they succeeded each other in England. What would be deemed reasonable in the city of New York might be deemed unreasonable at Lincoln, Neb., and so on. The New York anti-trust statute is open to the same difficulty, besides being less precise; and the same is true generally of similar statutes throughout the States, none of which has been found of much, if any, use.

THE CRIME OF FAVORITISM IN RAILROAD FREIGHTS.

In conclusion, I come to the greatest crime of our day and generation, namely, the favoritism in freight rates on our public highways. I say crime, for more wrong has been done by it than by all the crimes defined by our statutes. It has crushed and beggared thousands all over the land. And I say public highways, because our railroads are our public highways. That the public highways of a country should be used to aggrandize some and destroy others is so infamous and so heartless that we shall be looked back upon as a generation lost to moral sense for having allowed it so long. From the beginning of government, everywhere in the world, the public highways have always been built and controlled by government, and every one given an equal use of them. This continued to be so until the coming of the steam railroads. Then for the first time in the history of the world public highways were turned over to the control of private individuals,

if we except a comparatively few turnpike roads. Instead of building and controlling the railroads itself, government granted franchises to corporations to build and control them. But they were allowed to be built only as public highways, to be used like all other public highways, for every one alike and without favor or discrimination. This is the law of their being. Railroad corporations are allowed to make a profit for their stockholders, but this is only incidental. They perform a public service, and their first and paramount duty is to government and the public. Their duty to their stockholders is secondary and subordinate. The extent to which these corporations have violated their duty by carrying the freight of some at a lower rate than that exacted of their business rivals, and so much lower as to ruin such rivals, forms the most criminal chapter in our history. This freight favoritism is the mother of trusts. The first trust was built up wholly by it. When the oil of one man or set of men, for instance, and speaking approximately, was carried to market by the railroads for one dollar a barrel while all competitors had to pay two dollars, the latter were ruined and had to quit. They could dig wells and refine oil just as well as their rivals, but when such rivals got a reduction or rebate in freight rates which enabled them to ruinously undersell all others, that was the end of rivalry. Can you conceive of a greater wrong than the public highways of a country being used by individuals to destroy and drive out their competitors in business? Many of the trusts have their own cars, and have them hauled at rates that make competition against them impossible. In the investigation of the affairs of the Boston & Albany Railroad by the legislature of Massachusetts, at the time it was about to be leased to the New York Central system, it was found that one trust had its cars billed over that railroad at a capacity of 24,000 pounds, whereas on measurement their capacity was found to be 50,000 pounds. It is said rebates are no longer paid by railroads in cash, and that is doubtless true; but here was a rebate of over 50 per cent. by a simple device. And how many similar devices are there? The extent of such discrimination was shown by the fact that the total receipts for freight, compared with the total tonnage carried, was little more than

if all the freight had been carried at the lowest freight rate on the published schedule, namely, that on coal. The evil has grown so extensive that its eradication must come before long. The Interstate Commerce Commission was created to stop it, but it has failed. It is too unwieldy. Complaints brought before it meet with all sorts of delays, and business men at a distance who make them are worn out by them. It is only another exemplification of the law's delay. The evil needs summary executive treatment instead of the slow processes of judicial procedure. An ounce of executive prevention would be worth a pound of judicial cure.

Some advocate the taking of the railroads by government. If the possibility of this experience we have had with freight rates had been foreseen, government would never have turned over these highways to corporations. But the resumption of them now would be a vast enterprise. All that we need, it seems to me, is that government appoint the general freight agent of every railroad. That would end all discrimination in freight rates. The local freight agents, though appointed and paid by the companies, would be accountable to the general freight agent appointed by the government, and dismissed for the slightest discrimination in favor of any one in freight rates. The government agent would not have the fixing of rates; they would continue to be fixed by the companies; but his duty to the government and the public would be to see that every one paid the fixed rate, and got no favor whatever.

This matter of freight rates so far transcends any other question about trusts or monopolies that it should be dealt with first of all, and its right settlement will be found to settle most of the other questions, also, if not all of them. It will restore free competition at a controlling point; for freight rates enter controllingly into the cost of every commodity at the end of its journey, namely, as it is produced to the consumer.

3. THE DISFRANCHISEMENT OF THE NEGRO, FROM A LAWYER'S STANDPOINT.

BY R. BURNHAM MOFFAT, ESQ., OF THE NEW YORK BAR.

Within the past few years seven of our sister States, in the South, have adopted new constitutions, amended their old ones, or resorted to legislative devices which have resulted in the practical disfranchisement of the negro voter in each of those States.

Mississippi was the first to attempt to accomplish by lawful means that which had for so long been accomplished within her borders by force and by fraud. 133 whites and 1 negro sat in convention in 1890, from August 12 to November 1, and there framed a new constitution with its provisions as to the suffrage, which will be referred to below. The political complexion of the convention was 129 Democrats, 1 Conservative, 1 Greenbacker, 1 Jeffersonian Democrat, 1 Republican, and 1 National Republican. The constitution so framed became effective on Nov. 1, 1890, by proclamation, without submission to the people; and the Supreme Court of Mississippi subsequently declared it to have been lawfully adopted as the organic law of the State.*

In 1895 *South Carolina*, with a convention of 160 delegates sitting from September 10 to December 4, adopted her new constitution, which went into operation on Dec. 31, 1895.

The next was *Louisiana*, in 1898. Her convention of 134 Democrats, 1 Populist, and 1 Republican, sat from the 8th of February to the 12th of May. It had been called by a popular vote under an act of the legislature providing that, in case the convention should adopt a new constitution, it must be submitted to the people for ratification or rejection; but the convention voted this restriction *ultra vires*, and the new constitution was accordingly promulgated without submission. The Supreme Court of Louisiana has since declared it to have been duly adopted, and to have been effective since the adjournment of the convention on the 12th of May, 1898.†

* *Sproule v. Fredericks*, 69 Miss. 898.

† *State v. Favre*, 51 La. Ann. 434; *State v. Caldwell*, 50 Id. 666.

North Carolina followed with an amendment to its existing constitution, which substituted an entirely new article in place of the old one relating to the suffrage. The amendment was adopted at a general election held Aug. 2, 1900, and became effective by its terms on the 1st of July, 1902.

Maryland was next. She did not attempt to change her organic law, but at an extraordinary session of the legislature passed an act (approved March 21, 1901) which was designed, among other things, to impose an educational qualification for the right of suffrage.

Alabama adopted a new constitution in 1901. In accordance with the popular vote at an election held April 23 of that year a constitutional convention of 155 delegates convened on May 21, 1901, and sat until September 3 following. The constitution which it framed was ratified by the people at a special election, and became effective on Nov. 28, 1901.

The last of the new constitutions is that of *Virginia*. A convention of 88 Democrats and 12 Republicans sat from the 12th of June, 1901, to the 26th of June, 1902; and although here, too, the act of the legislature, under which the people had voted that a convention should be called, had distinctly provided that any constitution which the convention might frame should be submitted to the people for ratification or rejection, the convention by a vote of 47 to 38 decided to proclaim their constitution *without* submission. It was accordingly proclaimed, and became effective on the 10th of July, 1902. To anticipate a test in the courts as to the validity of the constitution so proclaimed, an extraordinary session of the General Assembly, or legislature, was convened on July 15, 1902; and an oath to support the new constitution was tendered its members. The members and officers of both houses, with the exception of a single member of the House of Delegates,—a Republican,—took the oath so tendered; while the Governor of the State, all the executive officers at Richmond, the members of the Supreme Court of Appeals, and the judges of the circuit, county, and corporation courts, all took a similar oath between the 10th and the 20th of July, 1902, the time allowed them within which to take such oath or vacate their respective offices.*

*"A History of Virginia Conventions." By J. N. Brenaman. Richmond: J. L. Hill Printing Company. 1902.

There can be no reasonable doubt that the *intent* of the delegates to these various conventions was to frame their constitutions in such wise as to stand the test of the Fifteenth Amendment to the Federal Constitution and at the same time withhold the ballot from the great mass of negro voters in their respective States. The *intent* of the framers of a law can of course have no bearing upon the validity of the measure except in so far as that intent may be gathered from its phraseology or may be properly inferable from the results obtained by an impartial administration of its provisions; and what the motive may be that prompted the individual delegates to vote as they did is never a proper subject of judicial inquiry. Nevertheless, it is interesting and instructive, in considering these new suffrage provisions from the standpoint of the legal critic, to note the following extracts from the speeches of the delegates on the floors of the various conventions.

The chairman of the Louisiana Convention, the Hon. E. B. Kruttschnitt, said in his closing speech at the adjournment of the convention on May 12, 1898:—

We have not drafted the exact constitution that we should like to have drafted. Otherwise, we should have inscribed in it, if I know the popular sentiment of this State, universal white manhood suffrage, and the exclusion from the suffrage of every man with a trace of African blood in his veins. We could not do *that* on account of the Fifteenth Amendment to the Constitution of the United States. . . . But we have swept the field of permissible expedients in order to keep the negro from exercising the suffrage.

What care I whether the *test* we have put be a new one or an old one? What care I whether it be more or less ridiculous or not? Doesn't it meet the case? Doesn't it let the white man vote, and doesn't it stop the negro from voting? And isn't that what we came here for? [Applause.] . . . I would say, further, my fellow-delegates, if the plan which has been adopted by this Convention had not been adopted, I fail to see any that could have been adopted to solve this problem. And I do not believe that there was any solution for it, but that we should have been forced to return to those methods which have prevailed in the elections in the State of Louisiana for the past twenty years. Now we have left those methods behind us. We have placed it within the power of the people of this State to have elections as fair and as pure as those in the State of Massachusetts herself; and I say to you that we

can appeal to the conscience of the nation, both judicial and legislative, and I don't believe that they will take the responsibility of striking down the system which we have reared in order to protect the purity of the ballot box and to perpetuate the supremacy of the Anglo-Saxon race in Louisiana. If they do, theirs be the responsibility for bringing back the methods which have prevailed in the past, not ours. We have reared a perfectly clean structure, and we intend to have a clean electorate, if the rest of the nation will allow it; and we believe that they will. [Applause.]*

On the floor of the same convention the Hon. Thomas J. Semmes, a delegate, who was at one time president of the American Bar Association, said, in reviewing the constitution just framed:—

Now, then, what have we done? is the question. Our mission was, in the first place, to establish the supremacy of the white race in this State to the extent to which it could be legally and constitutionally done. And what has our ordinance on suffrage—the constitutional means by which we propose to *maintain* that ascendancy—done? We have established throughout the State white manhood suffrage!

And then, referring to the postponement of the alternative property or educational qualification which will be referred to below, the speaker continued:—

What is section five? It is a declaration, upon the part of this Convention, that no white man in this State,—that's the effect, but not the language,—that no white man in this State who has heretofore exercised the right of suffrage shall be deprived of it, whether or not he can read or write, or whether he possesses the property qualification. That is the meaning of it, nothing more and nothing less. It declares that every white man between now and the first day of September next, although he may not be able to read and write, although he does not possess the property qualification, may, notwithstanding, if he register himself pursuant to this ordinance of the Constitution, be thereafter entitled to vote. That is the meaning of it. If he doesn't choose to register between now and the first of September next, he loses the privilege conferred upon him, and thereafter he can only vote provided he possesses the qualifications which I have just mentioned,—the property or education. That is the temporary clause. However ill-advised it might be, however, if you choose, unconstitutional it might be, its effect expires on the first of September next; and thereafter no man will be entitled to vote who has not

* Journal of the Convention, pp. 380, 381.

registered as provided by this fifth section, between now and the first of September next, unless he possesses the property qualification or the educational qualification.

But why was this exception made? Because—and I am ashamed to say it—Louisiana is one of the most illiterate States in the Union. It is more illiterate than any other State, except North Carolina. We, therefore, have in this State a large white population whose right to vote would have been stricken down but for the operation of this section five. And all of these men have aided the white people of the State to wrest from the hands of the Republican party, composed almost exclusively of negroes, the power which, backed by Federal bayonets, they had exercised for many years.

He then pointed out that the class of the people he referred to was the ancient Creole and Acadian population of South-western Louisiana, and continued:—

Who doesn't know the character of these people,—how simple, how pious, how reverent, and how devoted in their local attachments, living, until recently when the railroads have penetrated their domain, on the prairies? And how hospitable they are! . . . Now these people, these simple, good people, whose ancestors have been living there for a hundred and fifty years, surrounded by circumstances which debarred them from all the advantages of education,—*could* any man with a heart in his breast be willing to strike them down and reduce them to the condition of the black race that we are proscribing? [Cries of "No," and applause.] . . . The favor that we have conceded them is this: You have been kept in this condition for centuries by circumstances beyond your control; and for that reason we allow you to continue to exercise the right of suffrage without possessing a property or an educational qualification. But the circumstances and the times have changed. Your *children* must go to school. *You* must acquire property if you would exercise the right to vote, and not claim hereafter the benefit of the concessions which are now made.

Was not this politic legislation? Was it not proper legislation? And was it not essential and necessary in justice to these people?*

In the Alabama Convention of 1901 the chairman, Mr. John B. Knox, said upon taking the chair:—

If we would have white supremacy, we must establish it by law, not by force or fraud. If you teach your boy that it

* Journal of Convention, pp. 375, 376.

is right to buy a vote, it is an easy step for him to learn to use money to bribe or corrupt officials or trustees of any class. If you teach your boy that it is right to steal votes, it is an easy step for him to believe that it is right to steal whatever he may need or greatly desire. . . . There is no higher duty resting upon us as citizens and as delegates than that which requires us to embody in the fundamental law such provisions as will enable us to protect the sanctity of the ballot in every portion of the State.

The justification for whatever manipulation of the ballot that has occurred in this State has been the menace of negro domination.*

And J. Thomas Heflin, a delegate to the same convention, said:—

We have told the people of Alabama for years that we wanted to disfranchise the negro. . . . The white people who love the ballot, who love the sanctity of their fireside, who love the government of their homes and of their States, want to exercise that great weapon in the defence of things that are right and sacred. We want the white man who once voted in this State, and controlled it, to vote again. We want to see that old condition restored. Upon that theory we . . . pledged ourselves to the white people of Alabama, upon the platform, that we would not disfranchise a single white man if they would trust us to frame an organic law for Alabama. But it is our purpose, it is our intention—and here is our registered vow—to disfranchise every negro in the State, and not a single white man.†

On the same day another delegate, James Weatherly, frankly said:—

The people of Alabama, exercising a revolutionary right, have decreed that the Fifteenth Amendment, in so far as it may include all of the negro race of voting age, shall not be enforced in the State of Alabama. Can any man deny the fact that, almost since the adoption of the Fifteenth Amendment, the very immunity which it sought to secure has been annulled by the unanimous voice of the white people of Alabama? Now that has been done by revolutionary methods,—by force and by fraud; and, as always happens when those methods are resorted to, other evils have been created. Fraud having become necessary, it has debauched the consciences of our people. It threatens with degeneracy our descendants, and we feel that we cannot perpetuate our decree of annulment by these methods. . . . We are in accord with the Na-

* *Montgomery Advertiser*, May 23, 1901.

† *Ibid.*, July 26, 1901.

tional Government, except upon the one single proposition. We are not in accord upon that proposition; and we can never be if it shall be maintained that it is our duty under the Fifteenth Amendment to accord the full and unrestricted right of suffrage to the negro race,—that because he is a negro he must vote, whether he is qualified or not. We can never assent to that proposition.

Now what are we here for? I think, delegates of this Convention, that . . . we are here to put upon a permanent basis the elements which will hold our civilization together; and we are here for a still higher purpose,—namely, to restore the State of Alabama to its absolutely normal relation to the National Government, by providing a plan of suffrage which will give to the negro an equitable right of suffrage, and give him also the hope of increasing in proportion and in numbers that right of suffrage,—a fair and equitable plan upon which and by which he may, as the years go by, if he has that in him which will capacitate him for self-government, stand at last upon the same footing as the white man, so far as the right to vote is concerned, but, in so far as he shows that he is incapacitated, we want it fixed in our law, in our social structure, that he shall be disqualified from voting.*

In Virginia a delegate who favored the so-called “understanding” clause as a qualification for registration,—that is, that an applicant for registration should, whether or not he were able to read, be nevertheless able to give “a reasonable explanation” to the officers of registration of any section of the new constitution which they might put to him,—said:—

I expect this clause to be efficient, because it will act *in terrorem* upon the negro race. They believe that they will have a hostile examination put upon them by the white man, and they believe that that will be a preventive to their exercising the suffrage; and they will not apply for registration.†

In South Carolina, Governor John Gary Evans, the chairman of the convention, said:—

There should be an educational qualification for the right of suffrage if the supremacy of intelligence is to be preserved. It is no injustice to any man, black or white, to have such a qualification; for only the intelligent are capable of governing. We must do our duty in this matter boldly and fearlessly, without regard to the censure of foreigners and aliens.

* *Montgomery Advertiser*, July 26, 1901.

† Albert E. McKinley in *Political Science Quarterly* for September, 1903, p. 494.

We have experienced the cost and hardship of the rule of the ignorant, and know what it means.

There is no room in this convention for factional differences. . . . It is your duty . . . to so fix your election laws that your wives, your children, and your homes will be protected, and Anglo-Saxon supremacy preserved. Fix it as in your judgment appears wisest. This much is expected of you by your people and the outside world.*

And on the day of the adjournment of the South Carolina Convention, George D. Tillman, a delegate from Edgefield, gave utterance to the following words in commenting upon the constitution which he had just helped to frame:—

We can all hope a great deal from the constitution we have adopted. It is not such an instrument as we would have made if we had been a free people. We are not a free people. We have not been since the war. I fear it will be some time before we can call ourselves free. I have had that fact very plainly impressed upon me for several years. If we were free, instead of having negro suffrage, we would have negro slavery. Instead of having the United States government, we would have the Confederate States government. Instead of paying \$3,000,000 pension tribute, we would be receiving it. Instead of having many things that we have, we would have other and better things. But, to the extent that we are permitted to govern ourselves and pay pension tribute to our conquerors, we have framed as good an organic law, take it as a whole, as the wisdom and patriotism of the State could have desired.†

I have quoted thus, at perhaps too great a length, from the utterances of some of the delegates to these various conventions, in support of what I think must be conceded as a fact; namely, that the primary purpose of the framers of these constitutions in restricting the right of suffrage was to disfranchise the negro. And the result certainly has been, generally speaking, to disfranchise him.

The Fourteenth Amendment to the Constitution of the United States, in the light of which these constitutions are to be considered, became a part of the organic law of the land on the 28th of July, 1868. Its first section reads as follows:—

All persons born or naturalized in the United States, and

* Journal of the Convention, p. 12.

† *Ibid*, p. 731.

subject to the jurisdiction thereof, are citizens of the United States and of the State wherein they reside.

No State shall make or enforce any law which shall abridge the privileges or immunities of citizens of the United States; nor shall any State deprive any person of life, liberty, or property without due process of law; nor deny to any person within its jurisdiction the equal protection of the laws.

The Thirteenth Amendment, abolishing slavery, had been declared ratified on the 18th of December, 1865; and on the 30th of March, 1870, the Fifteenth Amendment became a part of our Constitution, in the following words:—

SECTION 1. The right of citizens of the United States to vote shall not be denied or abridged by the United States or by any State on account of race, color, or previous condition of servitude.

SECTION 2. The Congress shall have power to enforce this article by appropriate legislation.

Let us now review, in the light of these fundamental and controlling provisions of the Federal Constitution, the new suffrage requirements of these seven Southern States. In each of them, we may say at the outset, the franchise was in any event limited to male citizens of the United States of the age of twenty-one years and upwards, idiots and insane persons and those convicted of any of certain enumerated crimes being expressly excluded; and in each of them, excepting Maryland, a residence of at least two years in the State and one year in the county was also prescribed.

And first as to *Mississippi*.

The new constitution of Mississippi was proclaimed, as we have seen, on Nov. 1, 1890. Certain stated qualifications for the right of suffrage were required up to Jan. 1, 1902,—a period of more than twelve years,—with added qualifications after that date.

Prior to Jan. 1, 1902, the requirements were: (1) registration under the laws thereafter to be enacted by the legislature, such registration being specifically declared in the constitution of 1890 to be "an essential and necessary qualification to vote at any and all elections"; and (2) payment, prior to February 1 of the year in which the vote is offered, of all taxes

due from the voter, including poll-taxes, for the two preceding years.

After Jan. 1, 1902, in addition to meeting the above requirements, the would-be voter must either (1) be able to read any section of the constitution of the State or, if he cannot read, then (2) "be able to understand the same when read to him or give a reasonable interpretation thereof." This is the so-called *understanding clause*.

The statutes passed in amplification of these constitutional requirements placed the conduct of elections in each election district in the hands of three so-called "Managers of Election," all of whom were not to be of the same political party *if* suitable persons of different political parties could be had in the district. The statute further provided that such managers "shall be judges of the qualifications of electors and may examine, on oath, any person duly registered and offering to vote, touching his qualifications as an elector."* Under an impartial administration of the law this would be a salutary provision; and, in considering the constitutionality of a measure, its due administration must be presumed. One cannot fail, however, to be impressed with the opportunity here offered for an abuse by the election managers of the discretion thus reposed in them. An arbitrary determination by them on the very day of election that a negro, though he had successfully run the gauntlet of the registration laws, was nevertheless *not* qualified as an elector, would mean, of course, the rejection of his ballot;† and the negro would then be put to the choice of instituting and conducting a protracted litigation in the hostile courts of the State (for the Federal courts would be without jurisdiction), beset with the greatest difficulties of proof, or, in the alternative, of an acquiescence in the determination that he was not qualified; and it is not difficult to imagine which his choice would be.

It was, however, chiefly through the anticipated inability of the negro to meet the requirements of the *registration laws* that it was believed his disfranchisement would be accomplished. And yet his inability to meet those requirements may never be held to be due to his color or to his race or to any previous condition of servitude, but rather to his mental

* Code of Mississippi, §§ 3643, 3644.

† See *Bew v. State*, 71 Miss. 6 (1893).

deformity—speaking generally and of the great mass of negroes—and to his roving habits. The fact that the registration laws were such as to place judicial power in the registration officials, so that by a partisan and unfair exercise of the discretion reposed in them they could admit numbers of whites to registration who were equally disqualified with the mass of the negroes and at the same time exclude individual negroes who were in fact amply qualified to register, cannot be urged against the constitutionality of the registration laws.

The general scheme of these laws in Mississippi is as follows:—

The applicant for registration must first make oath to his qualifications as an elector in respect of age and residence, swearing also (1) that he has not been disqualified from voting by conviction of any of the enumerated crimes; (2) that he will truthfully answer all questions put to him concerning his antecedents, so far as they relate to his right to vote; and (3) that he will faithfully support the Constitutions of the United States and of the State of Mississippi. He must then show that he has paid all taxes for the two preceding years, after which he is required to submit to examination by the registrar as to his qualifications for registration. If, upon such examination, the registrar “adjudges” him qualified, his name is placed upon the registration book, together with a statement of sundry matters for purposes of identification, one of which is the applicant’s qualification under the understanding clause of the constitution. A column is also provided for his signature.

In case the application be denied, then the applicant may within five days take a written appeal to the Board of County Election Commissioners, where the case is to be heard *de novo*. Either side may offer oral proof, and power is given to the board to subpoena witnesses, etc. The decision of the board is final as to all questions of *fact*; but an appeal may be taken on the law, as stated below, to the Circuit Court of the county, and thence to the Supreme Court of the State.

A check upon the action of the registrar in improperly *granting* an application for registration is found in the provision of the statute which permits any elector of the county to appeal to the Board of Commissioners from *any* decision

granting an application for registration. The notice of appeal, however, in such case must first be served upon the person whose right to register is attacked, and must state the grounds of the appeal.

One further provision of the election law of Mississippi which, while unassailable on constitutional grounds, is pregnant with suggestion to the managers of election,—should they be unscrupulously inclined,—is that which declares that, should the poll-books containing the list for any district of the registered electors, or the ballot-boxes, not arrive at the polling-place in time for the election, the election shall nevertheless be held. In such cases the managers are required to provide some suitable substitute for the ballot-boxes, and to conform as nearly as possible to the law “in the reception and disposition of the official ballots.” Beyond this the statute is silent. It leaves to those whom it has elsewhere declared to be the judges of the qualifications of electors, notwithstanding those electors may all have been duly registered, the responsibility of deciding what to do in the absence of the poll-books. Where race prejudice runs high, it is not difficult to imagine what would be done.

So much for the suffrage article of the new constitution and statute law of Mississippi.

They were submitted to the consideration of the Supreme Court of the United States in 1898 in the case of *Williams v. Mississippi*, 170 U. S. 213; and it was there unanimously held, Justice McKenna writing for the court, that they were not violative of the Federal compact.

In *South Carolina*, under the new constitution which went into operation Dec. 31, 1895, the qualifications for the suffrage are: (1) payment, at least six months before election, of any poll-tax then due and unpaid; and (2) registration.

The requirements for registration varied according to whether application be made before or after the 1st of January, 1898.

Up to Jan. 1, 1898,—a period of three years after the adoption of the constitution,—the test was either (1) ability to read any section of the State constitution when submitted to the applicant by the registration officials or (2) ability to “understand and explain” any section when read by such

officials. All persons registered prior to Jan. 1, 1898, are declared by the constitution to be electors for life, except, of course, as they may subsequently become disqualified by loss of reason, conviction of crime, etc.

After Jan. 1, 1898, the qualification was either (1) ability both to read and to write any section of the State constitution as submitted to the applicant by the registration officials or (2) the ownership of real or personal property in the State of South Carolina of the assessed valuation of \$300 or more, and the payment of all taxes collectible thereon during the previous year.

An applicant denied registration may appeal within ten days after announcement of the decision to the Court of Common Pleas, where the hearing, as in Mississippi, shall be *de novo*; and from the decision of the Common Pleas on such appeal the applicant, or any qualified elector of the county, may within ten days from the filing of such decision appeal on exceptions to the Supreme Court of the State.

Power is also given to the Board of Registration not less than ten days before an election to "revise" the list of registered voters and, without notice to any one, to erase therefrom the names of all who have died, become disqualified, or moved from the county, or who may have been "illegally or fraudulently registered." A right of appeal to the Common Pleas is given to any elector who deems himself injured by any action of the board under this section.

In Mississippi, I neglected to state, the same power is given to the Board of County Commissioners, with the added power to erase from the registration books, also without notice, the names of all persons "erroneously thereon." A wide discretion!

The requirements for the right of suffrage in *Louisiana* are: (1) registration upon the personal application of the voter; and (2) payment of a poll-tax of one dollar on or before the 31st of December of each year for the two preceding years. Furthermore, the applicant must (3) be able to read and write, and demonstrate his ability to do so when he applies for registration by making, under oath, a written application therefor, either in English or in his mother tongue,—

a seemingly curious provision to us of the North,—which shall contain the essential facts showing him entitled to register and to vote. This application, to use the words of the constitution, “shall be entirely written, dated and signed by him in the presence of the registration officer,” without assistance or suggestion from any person or any memorandum whatsoever, except the form of application prescribed. In case the applicant cannot write because of some *physical disability*, the registration officer is permitted to write the application for him, but even then at his dictation.

But, if the applicant is unable to read or write because of illiteracy, he must show that he is the owner of real or personal property situated in the State of Louisiana of the assessed valuation of \$300 or more, upon which all taxes are paid. There is no so-called *understanding clause* in Louisiana.

But even yet the simple-minded Creole and Acadian population of South-western Louisiana, of whom we heard on the floor of the convention, would be excluded—and doubtless other whites, too—unless a further alternative set of requirements was prescribed; and so we find, for the first time in these Southern constitutions, the so-called *grandfather clause* among the requirements for registration. This provided that no person who had lived for five years or more in the State and registered prior to Sept. 1, 1898,—the constitution went into effect on May 12, 1898,—should be put to the educational or to the property test as a prerequisite to his right to register, *provided* he or his father or his grandfather was entitled to vote in any part of the United States on the first day of January, 1867, or at any time prior thereto. The reason of the selection of such date is obvious. Prior to the adoption of the Fourteenth Amendment in 1868 the suffrage was limited throughout the United States to *white* male citizens, etc.; and opportunity for a negro to escape the educational or the property test must be forestalled.

Rights of appeal from the denial of applications for registration, etc., were given, as in Mississippi and South Carolina.

In *North Carolina* the requirements of the new suffrage article were, similarly, payment of the poll-tax for the preceding year and registration; and it was through the consti-

tutional and statutory provisions as to registration that the ballot was controlled. In the constitution an educational qualification is prescribed in that ability to read and write any section of the Constitution, in the English language, is made the primary test. But the general applicability of such provision is at once whittled away in order to save from disfranchisement the mass of illiterate white mountaineers in the western part of the State; and the *grandfather clause* is added as a proviso, in almost the same language as in the constitution of Louisiana. Jan. 1, 1867, is here, too, selected as the qualifying date; but a much longer time for registration under this clause is given to the illiterate whites of North Carolina than was given to their illiterate brothers of Louisiana. In the latter State but little over three months were accorded; while in North Carolina registration is open under the grandfather clause to Dec. 1, 1908,—a period of more than six years.

By the statutes passed in amplification of the new suffrage article, an applicant for registration—except under the grandfather clause—must be sworn and submit to examination as to his identity and qualifications; and, if the registrar be in doubt as to the applicant's right to register, he may require other evidence "satisfactory to him" as to the applicant's qualifications. If, however, the application be made under the grandfather clause, the applicant's oath is sufficient proof of his qualification; and it is made unlawful for the registrar even to inquire whether the applicant can read or write.

On the Saturday preceding an election the registration rolls are thrown open, and any elector may then object to any name appearing on the rolls. The registrar must forthwith mark such name "challenged," and appoint a time and place "before the election day" (which, be it remembered, is but three days distant, and one of those days a Sunday) when he and the judges of election shall hear and decide the objection. Personal notice of the challenge is to be given to the voter objected to, if possible; but, if for *any* cause personal notice cannot be given, the statute says it shall be sufficient to leave a copy of the notice at the voter's residence. On the hearing of the objection, the registrar is to erase the name of the voter from the books, if he be found "not duly qualified."

The statutory right of challenging a vote on election day

is also pregnant with possibilities. In case of such a challenge the judges and registrar are directed by the statute to explain to the would-be voter the qualifications of an elector, and then to examine him as to those qualifications. If, still unterrified, the voter insists he is qualified, he must prove his identity and his continued residence in the precinct since his name was placed upon the registration list, not by his own oath, but by that of at least one elector; and then the registrar or judges are to tender him an oath in a form prescribed. If by that time he is so terrified or confused as to decline to take the oath, his vote shall be rejected; but, if he still persists and will take the oath, his vote shall be received, "*provided*," the framers of the statute enacted, "that after such oath or affirmation shall have been taken the registrar and judges may nevertheless refuse to permit such person to vote, unless they be satisfied that he is a legal voter." False swearing is punishable as perjury.

In *Maryland* it was sought to accomplish the desired change in the right of suffrage by legislative fiat rather than by constitutional amendment.

The existing constitution of the State, in force since 1867,—and still in force,—directed the legislature to provide for a uniform registration of the names of all voters possessing those qualifications which the constitution prescribed, and then declared that such registration should be *conclusive* evidence of the right of the person so registered to vote. The clause on qualifications provided that *every* male citizen of the United States who was of the age of twenty-one years and upwards, and had been a resident of the State for one year and of the city or county for six months, and was not disqualified by conviction for crime, etc., *should be entitled to vote* at all elections, if registered. Construing these provisions as a delegation to the legislature of the power to impose any qualification for the right of suffrage which its fancy might dictate, the legislature, at an extraordinary session held in 1901, covertly introduced an educational test, which might or might not be applied according as the Board of Registry saw fit. The general scheme of the new registration law is as follows: All registration is to be in public, and any voter has the right

to challenge any applicant. If challenged, the applicant is to be carefully questioned by the Board of Registry; and, in case his application is denied, he may "make and sign an application in writing, under oath," in a form prescribed by the statute. The statute seems to contain no provision for an appeal to the courts by an applicant who cannot write.

Another provision of the statute, along the same general lines, permits *any* voter to go before the Board of Registry and make oath that he believes any specified person on the list is not a qualified voter. A list of all names so complained against, together with the names of those on the rolls whom any of the board suspects to be not qualified, is to be prepared some four weeks prior to election, except that, if the board knows that any one against whom a complaint is lodged, as above, is a qualified voter, it may omit such name from the list.

Notice is then to be given by mail, three weeks before election, to each person on the list, requiring him to show cause, at a time and place stated, why his name should not be erased from the rolls; and upon the return day of such notice those who appear are required to "make and sign an affidavit" in a form prescribed by the statute. No provision seems to be made by statute for any one who cannot write. After the affidavit is made and signed, the suspect is subjected to an examination by the board, which has full power to examine witnesses under oath and generally to make such inquiry as it deems proper. If a majority of the board is of the opinion that the suspect is disqualified, his name is to be stricken from the rolls. And then comes a curious provision of the statute. During the last hour of the sitting of the board, on the return of the notices sent out, if any person so notified has not yet appeared, his name shall be stricken from the rolls "*unless* a majority of the board are satisfied *of their own knowledge*, or upon competent testimony, that such person is entitled to have his name retained."

A general right of appeal to the courts is also given by the statute.

Another innovation in the Maryland statute is the provision that whoever moves from or vacates his actual dwelling-place or habitation in the State of Maryland, and takes up

another outside the State, is conclusively presumed to have intended to abandon his legal residence in the State and to have surrendered his right to registration as a voter, unless not later than ten days after such removal he appears in person before the clerk of the court and makes affidavit that he nevertheless has a fixed and definite intention of returning to the State at least six months prior to the next election; and, if he fails so to return, it must be conclusively presumed that he has abandoned his declared intention, and his name must be stricken from the registration rolls.

If a registration officer suspects that an applicant for registration has lost his residence by reason of removal from the State, he may question him closely, and even require the truth of his answers to be corroborated by independent evidence; and, if still not satisfied, he must refuse the application.

Still another innovation is the provision which denies the right of registration to any one moving into the State of Maryland after the 21st of March, 1901, until the expiration of one year—*not* after such person shall have moved into the State, but one year after he shall have caused to be entered, in a record book of the county into which he shall have moved, his name, residence, age, and occupation, and a declaration of his intention to become a citizen and resident of the State.

That the primary intent of the statute was to prescribe an educational qualification for the right of registration, and therefore for the right of suffrage, there can be no doubt. The law of 1896, which was repealed by the law of 1901, provided that, if *at the time of registration* a voter should declare to the officials, under oath, that he was unable to read or write, or was physically unable to mark his ballot, he could, at the time of *election*, receive the assistance of the poll clerks in the preparation of his ballot. The law of 1901, however, makes no provision for any such declaration at the time of *registration*, and limits the right of a voter to assistance by the poll clerks to those cases where the voter at the time of election declares, under oath, that "by reason of blindness or physical disability"—note the limitation—he is unable to mark his ballot. And even then the assistance which may be given him is confined to a marking of the ballot as the voter directs, the voter being required to name each of the candi-

dates for whom he would vote, and not being permitted to indicate them generally by party designation. The clerks are expressly forbidden to read the ballots to the voter or to make any suggestion as to how they should be marked. And, after all this is done, the vote must still be rejected unless a majority of the judges of election are satisfied as to the truth of the alleged disability. The statute is explicit that no voter shall receive any assistance in the marking of his ballot unless he falls within the class of those who are disabled by *blindness* or *physical disability*.

This portion of the act has been twice presented to the Court of Appeals of the State of Maryland for construction, but in neither case would the court consider the constitutionality of the act. The cases were decided on other grounds.*

The new *Alabama* constitution became effective Nov. 28, 1901. Registration and the payment, prior to February 1 next preceding the election, of all poll-taxes then due were the qualifications for suffrage. Here, too, an arbitrary date was set, Dec. 20, 1902 (a little more than a year after the constitution went into effect), as the dividing-point between the two sets of requirements for registration.

Prior to that date a citizen who was qualified as to age and residence, and not otherwise disqualified, was entitled to register, if he came within any one of three specified classes:—

The first class was the so-called *soldier class*, which here makes its first appearance in these Southern constitutions. This class comprises "all who have honorably served in the land or naval forces of the United States in the war of 1812, or in the war with Mexico, or in any war with the Indians, or in the war between the States, or in the war with Spain, or who honorably served in the land or naval forces of the Confederate States, or of the State of Alabama in the war between the States";

The second class comprised the lawful descendants of those who served in any of said wars or in the war of the American Revolution; and

The third class consisted of those persons of good character "who understand the duties and obligations of citizenship under a republican form of government."

* *Summerson v. Schilling*, 94 Md. 582, 591.

This last is the so-called *understanding clause*, though in somewhat different language from that employed in Mississippi and in South Carolina. In those two States the test was ability to understand any section of the State constitution, when read to the applicant, *or* give a reasonable interpretation thereof.

The three classifications mentioned were available to the voters of the State only up to Dec. 20, 1902,—a little more than a year after the constitution went into effect; and all persons thus registered were declared to be electors for life, unless subsequently disqualified for cause. No provision was made for registration during the next ten days; but *after* Jan. 1, 1903, one duly qualified as to age and residence is entitled to register,

(1) If he can read and write any article of the United States Constitution in the English language, and has worked or been employed in some regular occupation for the greater part of the preceding year; *or*

(2) If he is the owner, or is the husband of the owner, of forty acres of land upon which he resides, or of property within the State of Alabama of the assessed valuation of at least \$300, upon which all taxes for the preceding year shall have been paid.

Those who can read and write, but are physically unable to work; and those who cannot read and write, not because of illiteracy, but because of some physical disability,—are nevertheless entitled to register, if they be otherwise qualified as to age and residence.

The usual power is given to the board of registrars to examine all applicants for registration under oath, and any one to whom registration is denied is given a right of appeal to the courts within thirty days, and without the necessity of his furnishing security for costs. Upon such appeal the matter is to be heard *de novo* and before a jury, and the trial court is limited in its charge to a mere statement of what constitute the qualifications prescribed by law that entitle an applicant to become an elector at the time he applies for registration.

The usual power is also given to the registration officials to strike from the lists the names of those who have died or

become disqualified, but provision is made for a trial by jury on the demand of any person whose name it is proposed to strike from such lists.

The qualifications for suffrage in *Virginia*; the last of the States we are to consider, are the usual registration and payment of all poll-taxes due.

The requirement for registration, *prior to Jan. 1, 1904*, of an applicant who is qualified as to age and residence, is:—

(1) That he shall have served "in time of war in the army or navy of the United States, of the Confederate States, or of any State of the United States or of the Confederate States," which is a more concisely expressed *soldier clause* than that of Alabama; *or*

(2) That he shall be the son—not descendant generally, but *son*—of any such person; *or*

(3) That he shall own property upon which State taxes for the preceding year of at least \$1 shall have been paid; *or*

(4) That he shall be able to read any section of the State constitution, when submitted to him by the registration officers, *and* give a reasonable explanation of the same (in the *understanding clause* of the other constitutions we have considered, the words used were "*or* give a reasonable interpretation," etc.); *or*, if he be unable to read, that he be able to understand *and* give a reasonable explanation, etc., when the section is read to him by such officers.

Persons enrolled under any of these requirements may not be required to register again.

After Jan. 1, 1904, the requirements for registration are threefold:—

(1) Payment of all poll-taxes for the three preceding years;

(2) A written application for registration, made by the applicant in the presence of the registration officers in his own handwriting, and without any aid, suggestion, or memorandum, in which the applicant shall state his "name, age, date and place of birth, residence and occupation at the time and for the two years next preceding, and whether he has previously voted, and, if so, the state, county, and precinct in which he voted last" (this requirement, it would seem, may be dispensed with in the case of those *physically* unable to write); *and*

(3) An affidavit of the applicant that he will truthfully answer all questions put to him by the registration officers touching his qualifications as an elector.

The provision as to the payment of poll-taxes, whether as a qualification for the suffrage or for registration, is declared by the constitution not to apply to those who fought on either side during the "late war between the States."

Another distinction made between those who register before and those who register after Jan. 1, 1904, is that, while the former may be aided at the polls in the preparation of their ballots by such officers of election as they may designate, the latter must, unless *physically* unable to do so, prepare and deposit their ballots without any aid.

Power to prescribe a property qualification not exceeding \$250, as a prerequisite for voting in county, city, or town elections, is vested in the legislature, together with a discretion to make such exemptions from the operation of the property qualification as shall not be in conflict with the Constitution of the United States.

And, finally, the usual right of appeal to the courts, to be taken within ten days, is given to any one denied registration.

Such are the main provisions of these new constitutions and legislative enactments, conceded by their framers and supporters to be but so many attempts to accomplish the disfranchisement of the negro by lawful means.

In considering their constitutionality under the Fourteenth and Fifteenth Amendments, we must bear in mind what is sometimes overlooked in discussion, namely, that the right of suffrage is *not* an absolute right inherent in the citizen as such, but is rather a *privilege* conferred upon the citizen by the sovereign power of his State.

As Mr. Pomeroy says in his work on Constitutional Law,* the States have supreme control over this privilege; and taking it away or, what is the same thing, refusing to confer it does not impair any *right*. Such statement, however, is not quite correct, in so far as the right or privilege to vote for members of Congress and for presidential electors is concerned. That privilege is conferred upon the citizen, *not*

* Section 535.

by the sovereign power of his State, but by the sovereign power of the United States.*

With this modification in mind we gather the true rule from the words of Justice Somerville in *Washington v. The State*, 75 Ala. 582 (1884):—

There can be no such thing [he says] as a vested right in the elective franchise as against the State, or people, from which it was *ex gratia* derived; for, under our form of civil polity, all political power is inherent in the people, and they have . . . at all times an inalienable right to change their form of government in such manner as they may deem expedient.

Prior to the adoption of the Fourteenth and Fifteenth Amendments there was no restriction of any kind upon the power of a State to limit in any way it saw fit and for any reason that it chose the right of suffrage among its citizens; and the only existing restriction to-day (provided, of course, the restriction be not so arbitrary and unfair as to amount to a denial of the equal protection of the laws) is that imposed by the Fifteenth Amendment, that

The right of citizens of the United States to vote shall not be denied or abridged by the United States or by any State *on account of* race, color, or previous condition of servitude.

Unless, then, under recognized rules of statutory construction the constitutions and enactments we are considering may be held to work a denial or abridgment of the negro's right to vote *because* of his race, color, or previous condition of servitude, the concern of the Federal government in those constitutions and enactments and in the disfranchisement they have accomplished is limited (unless the equality clause of the Fourteenth Amendment be violated) to a corresponding reduction of the representation of those States in Congress and in the Electoral College.

One of the many difficulties that have checked the zeal of those who would attack these measures in the Federal courts is the constitutional limitation upon the jurisdiction of those courts. Generally speaking, the Federal courts can entertain jurisdiction of a cause only when the parties thereto are

* *Mason v. Missouri*, 179 U. S. 328, 335 (1900); *United States v. Reese*, 92 U. S. 214 (1875).

of diverse citizenship, and this is hardly apt to be the case where a citizen of a State assumes the initiative against the organic law under which he lives or where a so-called Federal question is involved in the litigation,—that is, a question which calls for an interpretation or construction of some provision of the Constitution or of the statute law of the United States.

When a case is taken up from the highest court of a State to the Supreme Court of the United States on the claim that jurisdiction attaches because a Federal question is involved, he who takes it up must first satisfy the court that the decision complained of not only was not decided, but cannot be sustained, except through an interpretation or construction of the constitutional or statutory provision involved.

It is this strict construction by the court of its jurisdictional limitations that has brought disaster to many well-meant but over-sanguine efforts to secure a decision by that tribunal upon some piece of State legislation or some constitutional provision which was believed to be obnoxious to the Federal compact.

An interesting instance of this is the recent effort made in the name of one Giles, a negro, to secure a determination by the Supreme Court upon the question of the validity of the suffrage provisions of the new Alabama constitution.

Giles's first step was to file in the Circuit Court of the United States, in equity, a bill against the registrars of election of his county, charging that the suffrage provisions of the new constitution of Alabama were repugnant to the Fourteenth and Fifteenth Amendments, and in their language and meaning, as well as by their operation and administration, deprived him and his race of the equal protection of the law and of their right to vote, and for no reason other than their race, color, and previous condition of servitude. He charged that the defendants had refused to register him and some five thousand others of his race, all of whom were duly qualified, simply because of their race, color, or previous condition of servitude, and that by such refusal he and they were about to be deprived of their right to vote for State and Federal officers in the election to take place on Nov. 4, 1902, while all the white men in Alabama were registered and given certificates, and would

all be allowed to vote in said election. He annexed to his bill voluminous extracts from the proceedings of the constitutional convention, the speeches of the president and delegates, and a copy of the suffrage and other articles of the constitution as adopted, and prayed that such suffrage provisions be declared null and void, that the defendants, as registration officers, be restrained from enforcing them and from making and filing any list of electors not containing his name and those of his race who were qualified, and, generally, from doing anything that would deprive him and his race of their right to vote in the approaching election because of their race, color, or previous condition of servitude.

The defendants demurred to the bill, setting up want of jurisdiction in the Federal courts and want of equity; and their demurrer was sustained. On appeal to the Supreme Court such ruling was affirmed, Justice Holmes writing the prevailing opinion, which was concurred in by Chief Justice Fuller and by Justices White, Peckham, and McKenna, while Justices Brewer and Harlan wrote dissenting opinions, and Justice Brown also dissented, though without opinion.

The question before the court and discussed in the opinions was the technical one of jurisdiction. After assuming that some manifest objections were resolved in favor of the plaintiff, Justice Holmes said:*

The difficulties which we cannot overcome are two, and the first is this: The plaintiff alleges that the whole registration scheme of the Alabama constitution is a fraud upon the Constitution of the United States, and asks us to declare it void. . . . If we accept the plaintiff's allegations for the purposes of his case, he cannot complain. We must accept or reject them. It is impossible simply to shut our eyes, put the plaintiff on the lists, be they honest or fraudulent, and leave the determination of the fundamental question for the future. . . . We express no opinion as to the alleged fact of their (the sections) unconstitutionality beyond saying that we are not willing to assume that they are valid in the face of the allegations and main object of the bill,—*for the purpose* of granting the relief which it was necessary to pray in order that that object should be secured.

The other difficulty is of a different sort, and strikingly reinforces the argument that equity cannot undertake now, any more than it has in the past, to enforce political rights.

* *Giles v. Harris*, 189 U. S. 475, 486.

... In determining whether a court of equity can take jurisdiction, one of the first questions is, What can it do to enforce any order that it may make? This is alleged to be a conspiracy of a State, although the State is not and could not be made a party to the bill. The Circuit Court has no constitutional power to control its (the State's) action by any direct means. And, if we leave the State out of consideration, the court has as little practical power to deal with the people of the State in a body. The bill imports that the great mass of the white population intends to keep the blacks from voting. . . . Unless we are prepared to supervise the voting in that State by officers of the court, it seems to us that all that the plaintiff could get from equity would be an empty form.

Defeated in equity, and beyond doubt properly so, the same negro, Giles, then commenced in the State courts of Alabama an action at common law against the same registrars of his county to recover \$5,000 damages resulting from their alleged wrongful refusal to register him under the new constitution and laws of the State. He charged in his complaint that this refusal was based upon no other ground than that he was a negro and of African descent, and that the provisions of the State constitution relating to suffrage were unconstitutional and void because in conflict with the Fourteenth and Fifteenth Amendments to the Federal Constitution. His complaint was voluminous, and contained the various provisions of the constitution, statutes, and speeches which he had set forth in his bill in equity. The defendants again demurred, and their demurrer was sustained; and, upon plaintiff declining to amend or plead further, his case was dismissed. He thereupon appealed to the Supreme Court of Alabama, where the judgment of dismissal was affirmed in a tersely expressed opinion.*—

If we accept (without deciding) as correct [said the court] the insistence laid in appellant's brief that section 186 of Article VIII. of the Constitution is void because repugnant to the Fourteenth and Fifteenth Amendments of the Constitution of the United States, then the defendants were wholly without authority to register the plaintiff as a voter, and their refusal to do so cannot be made the predicate for recovery of damages against them.

On the other hand, if that section is the source of their authority, the jurisdiction is expressly conferred by it upon

* *Giles v. Teasley*, 136 Ala. 164 (1903).

the defendants as a board of registrars to determine the qualifications of plaintiff as an elector and of his right to register as a voter. For their judicial determination that plaintiff did not possess the requisite qualifications of an elector, and for their judicial act of refusing to register him, predicated upon that determination, they are not liable.

At about the same time that Giles commenced his action for damages, he applied for a writ of mandamus against the same defendants, and set forth in his petition substantially all the facts that he had alleged in his complaint. His prayer was that the suffrage provisions of the State constitution be declared void because repugnant to the Fourteenth and Fifteenth Amendments, and that a writ of mandamus issue commanding the defendants, as the board of registrars of his county, to register him as a qualified voter of the State, etc.

Defendants demurred also to this petition, and again their demurrer was sustained. The Supreme Court of the State said, in affirming such decision:—

As the sections of the constitution assailed created the board of registrars, fixed their tenure of office and defined and prescribed their duties, if they are stricken down on account of being unconstitutional, it is entirely clear that the board would have no existence and no duties to perform.

So, then, taking the case as made by the petition, and without deciding the constitutional question attempted to be raised or intimating anything as to the correctness of the contention on that question, there would be no board to perform the duty sought to be compelled by the writ, and no duty imposed of which the petitioner can avail himself in this proceeding, to say nothing of his right to be registered.

Writs of error were then sued out in each case, and the two were heard together in the Supreme Court of the United States, which on February 23 of the current year dismissed both writs for want of jurisdiction. The opinion of the court† was written by Justice Day, and was concurred in by all except Justice McKenna, who concurred in the result, and by Justice Harlan, who dissented. Justice Day said:—

When the jurisdiction depends, as in the present cases, upon a right, privilege, or immunity under the Constitution of the United States specially set up and denied in the State

* *Giles v. Teasley*, 136 Ala. 228 (1903).

† *Giles v. Teasley*, 193 U. S. 146 (1904).

court, certain propositions . . . are well settled, among others, . . . it must appear from the record, by clear and necessary intendment, that the Federal question was directly involved so that the State court could not have given judgment without deciding it.* It is equally well settled that, if the decision of a State court rests on an independent ground,—one which does not necessarily include a determination of the Federal right claimed,—or upon a ground broad enough to sustain it without deciding the Federal question raised, this court has no jurisdiction to review the judgment of the State court.

He then observed that the Federal right for which the plaintiff evidently sought protection was that secured by the Fifteenth Amendment, and said:—

But in the present case the State court has not sustained the right of the State to thus abridge the constitutional rights of the plaintiff. It has planted its decision upon a ground independent of the alleged State action seeking to nullify the force and effect of the constitutional amendments protecting the right of suffrage. The first ground of sustaining the demurrer is, in effect, that, conceding the allegations of the petition to be true, and the registrars to have been appointed and qualified under a constitution which has for its purpose to prevent negroes from voting and to exclude them from registration for that purpose, no damage has been suffered by the plaintiff, because no refusal to register by a board thus constituted in defiance of the Federal Constitution could have the effect to disqualify a legal voter, otherwise entitled to exercise the elective franchise. In such a decision, no right, immunity, or privilege, the creation of Federal authority, has been set up by the plaintiff in error and denied in such wise as to give this court the right to review the State court decision.

This view renders it unnecessary to consider whether, where a proper case was made for the denial of the right of suffrage, it would be a defence for the election officers to say that they were acting in a judicial capacity *where the denial of the right was solely because of the race, color, or previous condition of servitude of the plaintiff*.†

In the ground first stated we are of opinion that the State court decided the case for reasons independent of the Federal right claimed, and hence its action is not reviewable here.

Commenting upon the decision of the Supreme Court of Alabama in the mandamus proceedings, Justice Day holds that the grounds stated in the opinion of that court were ade-

* *Sayward v. Denny*, 158 U. S. 180.

† The Italics are mine.

quate to sustain the decision, wholly independent of the rights set up by the plaintiff as secured to him by the constitutional amendments for his protection, and in conclusion says:—

In reaching the conclusion that the present writs of error must be dismissed, the court is not unmindful of the gravity of the statements of the complainant charging violation of a constitutional amendment which is a part of the supreme law of the land; but the right of this court to review the decisions of the highest court of a State has long been well settled, and is circumscribed by the rules established by law. We are of opinion that plaintiffs in error have not brought the cases within the statute giving to this court the right of review.

I have quoted thus at length from the opinions in these cases to make clear to my hearers the difficulties that beset the path of him who would seek a decision by the Supreme Court of the United States upon the legality of the suffrage provisions of the Southern constitutions. Time and space do not permit a further consideration, in the light of the decisions of that court, of the sundry questions of constitutional law and of practice involved; and prudence forbids even the hazarding of an opinion as to how far that tribunal will deem itself bound by the hitherto recognized limitations upon Federal authority, should the question be finally brought before it in such shape as to require a decision.

In a very recent case, still fresh in the minds of us all, the court, by the barest majority, has strained well-nigh to the snapping-point, to put it conservatively, the constitutional limitations upon the right of Federal interference;* and it is the part of wisdom to rest content with a statement of the law as it has been, and as it is, without attempting to forecast the future.

In considering the questions now before us, it must be borne in mind that equality of protection or operation does not mean "indiscriminate operation on persons merely as such, but on persons according to their relations."† Justice Field pointedly said in *County of Mobile v. Kimball*, 102 U. S. 691, 704, that the Supreme Court was not a harbor of refuge from ill-advised, unequal, and oppressive State legislation, unless some clear constitutional right were invaded; and in the *Ma-*

* *The Northern Securities Case*, 193 U. S. 197.

† *Magoun v. Illinois Trust Co.*, 170 U. S. 283, 293 (1897).

gown case, from which I have just quoted, Justice McKenna said:—

The State may distinguish, select, and classify objects of legislation, and necessarily this power must have a wide range of discretion. It is not without limitation, of course. . . . [But] there is no precise application of the rule of reasonableness of classification, and the rule of equality permits many practical inequalities. And necessarily so. In a classification for governmental purposes there cannot be an exact exclusion or inclusion of persons and things.

And in another case Justice Brewer said,*—

In all cases it must appear not only that a classification has been made [in order to remove a statute beyond the reach of the equality clause of the Fourteenth Amendment], but also that it is one based upon some reasonable ground,—some difference which bears a just and proper relation to the attempted classification,—and is not a mere arbitrary selection.

It was charged in a case before the Supreme Court† that a municipal ordinance of the city of San Francisco, though apparently designed for sanitary purposes, had in reality been adopted through a feeling of race antipathy and hatred against the Chinese, and for the sole purpose of compelling many of the Chinese to abandon their laundries. And it concededly had such effect. Nevertheless, the ordinance was sustained as beyond the power of Federal interference.

There is nothing, in the language of the ordinance [said Justice Field, who wrote for the court], or in the record of its enactment, which in any respect tends to sustain this allegation. And the rule is general, with reference to the enactments of all legislative bodies, that the courts cannot inquire into the motives of the legislators in passing them, except as they may be disclosed on the face of the acts, or inferable from their operation, considered with reference to the condition of the country and existing legislation. The motives of the legislators, considered as the purposes they had in view, will always be presumed to be to accomplish that which follows as the natural and reasonable effect of their enactment. Their motives, considered as the moral inducements for their votes, will vary with the different members of the legislative

* *Gulf, etc., Ry. v. Ellis*, 165 U. S. 150, 165 (1896).

† *Soon Hing v. Crowley*, 113 U. S. 703 (1884).

body. The diverse character of such motives, and the impossibility of penetrating into the hearts of men and ascertaining the truth, precludes all such inquiries as impracticable and futile.

And in the present case, even if the motives of the supervisors were as alleged, the ordinance would not be thereby changed from a legitimate police regulation, unless in its enforcement it is made to operate only against the class mentioned; and of this there is no pretence.

And now in conclusion—for I have necessarily eliminated much that bears upon the subject—may I venture to express the opinion that under the cases as they stand to-day the suffrage articles of these new constitutions do not violate the guarantee of the Fifteenth Amendment. They certainly do not in their terms, and, if impartially administered, do not in result. Whether the arbitrary and ridiculous classifications prescribed in connection with the requirements for registration—I mean the “soldier clause” and the “grandfather clause”—may be held to be an attempted exercise of a sovereign power which was denied to the States by the equality clause of the Fourteenth Amendment, is a more perplexing question. It is not clear that they do *not* violate such provision of the fundamental law, and it certainly is not clear that they do.

The “understanding clause” is the most susceptible of abuse, because it leaves to the judgment of untrained and not necessarily educated officials of the State the determination as to what does or does not constitute an understanding, to use the words of the statute, “of the duties and obligations of citizenship under a republican form of government.” The standards which may honestly be adopted by the registration officials may be as numerous and as various as there are counties in the State; and yet with the *quality* of the administration of an otherwise valid State law the Federal government has no concern, unless, possibly, such administration be charged and proved to be part and parcel of a State conspiracy. The “understanding clause” vests in these registration officers *discretion*, in the legal sense of that word; and it is not unlike those familiar instances of State legislation where discretion is lodged in public officers or boards to grant or withhold licenses for the sale of spirituous liquors, etc., according to

whether the applicant be or be not a "fit person" for the exercise of the privilege sought. In a case where the distinction between the grant of a discretion which calls for a consideration of the circumstances of each application, on the one hand, and of a mere arbitrary power without standard, guidance, or restraint, on the other hand, was considered,* Justice Matthews said:—

The *fact* of fitness is submitted to the judgment of the officer, and calls for the exercise of a discretion of a judicial nature.

The "understanding clause," I should therefore say, cannot be condemned as obnoxious to the Fourteenth Amendment without a radical extension, under the fiat power of the Supreme Court, of the hitherto recognized limitations upon the right of Federal interference; and that the Court would so use its absolute power is not to be presumed.

* *Yick Wo v. Hopkins*, 118 U. S. 356 (1885).

4. FRANCES POWER COBBE: A LIFE DEVOTED TO
THE PROMOTION OF SOCIAL SCIENCE.

BY F. B. SANBORN, HONORARY PRESIDENT OF THE ASSOCIATION.

When in the infancy of this Association we were looking about for Corresponding Members abroad, your Secretary, as I was then (Corresponding Secretary), turned naturally to such persons as he knew, by correspondence or otherwise, to be vitally interested in some of the thousand problems of social science. Among these were two ladies resident in England and intimate friends of each other,—Miss Mary Carpenter, of Bristol, and Miss Frances Power Cobbe, of London. They had once lived together at Bristol, the home of Miss Carpenter, working for the reformation of girls and for the general reformation of penal establishments and penal law; but now Miss Cobbe had withdrawn, an invalid, and, when she returned from years spent in the milder climates of Southern Europe and Asia, she took up her abode in London, and became a journalist and magazine writer. Originally, however, Miss Cobbe was Irish, born of a Tory family near Dublin, in whose line was a High Church Archbishop, and whose politics I have understood to be of the most conservative sort. Greatly to her father's disgust, Frances, who early took to reading in the ancestral library, became interested in philosophy and religion,—the latter not of the Anglican sort,—and presently she appeared as an author of the *Intuitive*, or what was here in New England called the *Transcendentalist*, school. Her first book, "*An Essay on Intuitive Morals, being an Attempt to popularize Ethical Science*," appeared in 1855 at London, when the author was thirty-two, and was reprinted at Boston in 1859, chiefly through the instrumentality of Theodore Parker, of whom she had become a correspondent in 1848, and by whose death-bed she sat in Florence, in May, 1860. It would have been reprinted earlier but for the financial troubles here in 1857. When it did come out, I was teaching advanced pupils in Concord, and at once put a class into Miss Cobbe's book, which was in the true line of descent from

Kant, and at variance with the materialism of England at that time and since.

This being so, Miss Cobbe, upon the death of her father, whose housekeeper she had been since her mother's death, had turned her thoughts and energies to practical ethics, and joined Miss Carpenter (a person very unlike herself) in unselfish labors for the good of others. Few persons have done more with the pen, although, like so many others, Miss Cobbe carried her philanthropies (if that is the right word to use of a person who crusaded against the vivisection of animals) into extremes. This was the more noticeable because she was a woman of society, of real Irish wit, and by no means exclusive in her choice of acquaintances and continuance in friendship. She was especially given to form friendships with foreigners, particularly Americans and Italians, but not very fond of France or the French. Her comments on our countrymen and countrywomen were frankly made, and, with their abounding good-nature, had a little that air of the English aristocrat who, with all the courtesy in the world, esteems himself specially chosen by Providence to pass judgment on other nations, whether invited to sit on the jury or not. I do not mean that superiority which she herself laughed at when she first met Matthew Arnold, and, noting his manner, said,—

We are all familiar with a certain tone of lofty superiority common to Roman Catholics and Anglicans, in dealing with Dissenters of all classes,—the tone, no doubt, in which the priests of On talked of Moses, when he led the Israelitish schism in the wilderness.

No, the air I mention is rather one of benevolent impartiality natural to the Upper Class of the Universe, in which truth, however bitter, is offered as a medicine, and the medical man in attendance is expected to see it duly administered, whatever the patient's private distaste may be. I have always admired the nonchalant way in which Miss Cobbe took the support or the opposition of those who felt any interest whatever in her studies and practices in social science. The one exception to this, so far as I know, was her intolerance on the subject of vivisection. She allowed this dispute, in which

both sides were right and both wrong, to break up old friendships, and stand in the way of that ease in forming acquaintances, so marked in her early and middle life. The abuses of vivisection, which will always make it a legitimate topic for restrictive legislation, were so great in England that they concealed from Miss Cobbe the proper uses of that method of scientific inquiry. It is within bounds to say that no topic of social science was foreign to Miss Cobbe, and that her personal acquaintance included almost all those in the countries she visited who were eminent in its studies or in the practice of the manifold arts with which social science has to do. She never visited America, as her friend Miss Carpenter once did, but rather too late in life to receive the full impression which our community, so unlike that of England, will convey to the foreigner of insight, who comes unimpregnated with traditional opinions. Especially was Miss Cobbe's intimacy great among women interested in social problems. Florence Nightingale, Mrs. Stowe, Lady Byron, Mrs. Kemble, the Mills, Taylors, Brights, Brownings, and so many more, were known to her and she to them. She wrote many books, aided many good causes, and published innumerable newspaper and magazine articles; but her most interesting book is that Autobiography which she published ten years ago, closing it ten years before her own death, lately announced, at the age of eighty-one. She was born at Newbridge in December, 1822.

I would advise all persons, who may wish to know thoroughly that spirit and those manners which have carried the well-mingled ruling class of England and Ireland through their remarkable career of conquest and government, during the past four centuries, to read this autobiography; for there they will find the whole thing in a nutshell. Strong qualities handed down from father to son, the instinct and the habit of command, courage invincible in the face of the most appalling odds, gracious manners clothing an inflexible purpose, keen wit, ready sympathy, except with natures and designs alien to their own, and a power of simple, strong affection, regardless of the means by which its objects are promoted,—all these were as conspicuous in this youngest daughter of an Irish squire as in any statesman or admiral or great commander whose name shines in the long record of England's unprinci-

pled domination of subject lands, and steady uplifting of her own people by liberal legislation. Miss Cobbe numbered among her ancestors not only an Archbishop of Dublin, but his immediate ancestor (grandfather) who sat in Richard Cromwell's Parliament, and another who sat in judgment on Charles Stuart. Her father, though for all the rest of his days a county magnate living quietly on his broad acres at Newbridge, twelve miles from Dublin, had been in his youth an officer under his Irish contemporary, Sir Arthur Wellesley, in India, and distinguished himself as a cavalry cornet on that day, illustrative of the martial career of Wellington, when the young general,

Far away,
Against the myriads of Assaye
Clashed with his fiery few, and won.

Almost dying of fever in India, he contrived to get back to Ireland, and there spent the rest of his days, educating his children, improving his land and his tenants, and turning his own daughter out of his house when he found she had adopted the religious views of her American correspondent, Theodore Parker. To these she adhered through a long life, although otherwise holding to the conservative opinions of her family in national politics. Her father recalled her, and she presided over his great establishment till his death in 1857. She was what we call in New England "a good housekeeper," although she would have looked with some scorn on this appellation, as being rather below the dignity of a born lady. But she was also, by her own almost unaided efforts in the old Archbishop's library at Newbridge, a very learned person, surprising everybody in her first book by uncommon erudition in regions of research far enough from the usual range of young ladies in Ireland, half a century ago. It was published anonymously and long passed as the work of a man,—very naturally; for who would suppose a woman could have gathered so many authorities in philosophy and theology, and reasoned so logically about them? Finally, the bigoted London *Guardian* (Nov. 21, 1855) printed what Miss Cobbe long afterwards called "this delightful paragraph":—

The author professes great admiration for Theodore Parker and Francis Newman, but his own pages are not disfigured by

the arrogance of the one or the shallow levity of the other. He writes gravely, not defiantly, as befits a man giving utterance to thoughts which he knows will generally be regarded as impious.

There was indeed the same sort of courage in this adventurous author, charging with her array of texts and principles against the batteries of established orthodoxy in England, that her father displayed, when, as Cornet Cobbe of the 19th Light Dragoons, he snatched the falling colors of his regiment from the dying hand of his sergeant, and carried them up to the muzzles of the hostile artillery. And I may add that her American leader in the path of Theism, Parker, was in his day, years before the founding of our society, the great fountain in New England of what we now call Social Science,—indeed, a whole Social Science Congress in himself, with his sermons against War, Slavery, Drunkenness, dropsical Wealth, every form of vice, and every shade of disregard for the laws of morals and political economy.

In her long conflict with the same evils in England which Parker combated in our newer country, Miss Cobbe was saved from despair and over-enthusiasm by that beautiful prophylactic, Irish humor, which shines forth in so many chapters of her autobiography, and is so dismally lacking in the more recent book of Herbert Spencer. She tells the story, with glee, of her great-grandmother, Lady Betty Cobbe, who dosed the sick in the whole circle of the Archbishop's estates, one day, meeting one of her beneficiaries on the road, and asking his name. "Ah, then, me lady, don't you remember me? Why, I'm the husband of the woman your ladyship gave the medicine to, and she died the next day,—long life to your ladyship!" Another of her stories was that of the child at Drumcar, elaborately instructed by Lady Elisabeth McClintock in the depravity of high priests and others of the tribe of Judah, who thus unravelled it upon examination in public: "What was the sin of the Pharisees, dear child?" "Ating camels, my lady." This was a sin which Miss Cobbe was continually denouncing, in the class to which she belonged, although the sinners (and she herself occasionally) carefully strained out the gnat that had fallen into their turtle-soup.

Her interest in Americans, first aroused by her sympathy

with Parker in his religious reformation, was heightened by meeting his attached parishioners, the Apthorps and Miss Sarah Hunt, in Rome at the Christmas season of 1857. Solitary and ill in her room at the Hotel Europa, she was startled by a card from strangers:—

It bore names unknown to me, "Mr. and Mrs. Robert Apthorp," and with the singular message, "Was I the Miss Cobbe who had corresponded with Theodore Parker in America?" My first impression was one of alarm. "What! more trouble about my heresies still?" It was, however, quite a different matter. My visitors were a gentleman (a *real* American gentleman) and his wife, with two ladies, who were all among Parker's intimate friends in America, and to whom he had showed my letters. They came to hold out to me the right hands of fellowship; and friends indeed we became, in such thorough sort that, after seven-and-thirty years, I am corresponding with dear Mrs. Apthorp still. She and her sister nursed me through my illness, and thus my solitude in Rome came to an end.

This was said in 1894; and only within the past year has Mrs. Apthorp died, for many years an invalid. Her son is that excellent musical critic so well known in Boston. My own acquaintance with Miss Cobbe was only by correspondence, and that ceased long since. At my request she wrote for the New York *Independent* a good account of the Irish Convict System, which forty years ago was the most advanced form of prison discipline in the world, now excelled by our own Reformatory System at Elmira, Concord, Mansfield (Ohio) and elsewhere. To this and to the kindred work of reforming vicious women and caring for incurables Miss Cobbe and Miss Carpenter devoted many arduous years, before the horrors of vivisection too much engrossed her sensitive soul. I have thought it due to both that this mention should be made of them in Boston, where both had so many friends, now, alas! like themselves, mostly gone over to the majority.

II. DEPARTMENT OF SOCIAL ECONOMY.

At the opening session of the Department of Social Economy, Rev. Josiah Strong, D.D., president of the Institute for Social Service, New York City, gave some account of the purposes and methods of that organization.

As a preliminary, he outlined the chief results of the industrial revolution as the solution of the problem of production, along with compilation of the problem of distribution; the redistribution of population and its profoundly important consequences; and the geographical separation of the family. The American Institute of Social Service was created for the express purpose of taking advantage of the new opportunity now open to the race,—the opportunity of evolving a new civilization founded on the yield of all the arts and sciences of our modern times.

Its object, as President Roosevelt says, is “to enable men to adapt social relations to the changed conditions created by the industrial revolution both in this and in other countries.” Its functions are: first, to gather facts of all kinds bearing upon industrial and social welfare; second, to interpret those facts by ascertaining, so far as is possible, their causes and their effects; third, to disseminate that knowledge for the education of public opinion throughout the United States and the world.

It has a dozen departments. It is constantly sending information all over the country and to foreign countries. We give such information when a corporation desires to improve the condition of its employees, and we do it by putting that corporation in possession of what the great captains of industry are doing in various parts of the world. If a city desires to improve its municipal housekeeping, we show by means of lantern slides, etc., what has been done in other great cities. When a church is struggling to adapt itself to new conditions, or a charitable philanthropic society seeks to improve its methods, we supply the experience of other churches and

societies. In this way the institute is able to raise the efficiency of thousands of institutions. We are all the while trying to inculcate Christian principles,—to establish and strengthen those relations which draw men closer together.

1. RESULTS OF ARBITRATION UNDER THE COAL STRIKE COMMISSION.

ABSTRACT OF REMARKS BY HON. CARROLL D. WRIGHT, LL.D.,
UNITED STATES COMMISSIONER OF LABOR.

The Anthracite Coal Strike Commission, finding that it could not recommend a joint agreement between the operators and their employees fixing all the conditions of employment and providing for a conciliation board, made such a board obligatory as a matter of award, the fourth award providing as follows:—

That any difficulty or disagreement arising under this award either as to its interpretation or application or in any way growing out of the relations of the employers and employed, which cannot be settled or adjusted by consultation between the superintendent or manager of the mine or mines and the miner or miners directly interested, or is of a scope too large to be so settled or adjusted, shall be referred to a permanent joint committee, to be called a board of conciliation, to consist of six persons, appointed as hereinafter provided. That is to say, if there shall be a division of the whole region into three districts, in each of which there shall exist an organization representing a majority of the nine workers of such district, one of said board of conciliation shall be appointed by each of said organizations, and three other persons shall be appointed by the operators, the operators in each of said districts appointing one person.

The board of conciliation thus constituted shall take up and consider any question referred to it as aforesaid, hearing both parties to the controversy, and such evidence as may be laid before it by either party; and any award made by a majority of such board of conciliation shall be final and binding on all parties. If, however, the said board is unable to decide any question submitted or point related thereto, that question or point shall be referred to an umpire, to be appointed, at the request of said board, by one of the circuit judges of the third judicial circuit of the United States, whose decision shall be final and binding in the premises.

The membership of said board shall at all times be kept complete, either the operators' or miners' organizations having the right, at any time when a controversy is not pending, to change their representation thereon.

At all hearings before said board the parties may be

represented by such person or persons as they may respectively select.

No suspension of work shall take place, by lockout or strike, pending the adjudication of any matter so taken up for adjustment.

It will be noticed that under this award all difficulties or disagreements arising under it, or relating to its interpretation or application, may be brought before the conciliation board, and that it also provides that difficulties or disagreements in any way growing out of the relations of employers and employed, which cannot be settled or adjusted by consultation, etc., may also be brought before the board. This gives a very wide range to the matters to be considered by the board of conciliation, should they be brought before it. This board of conciliation is to exist for three years from the time the award of the commission went into effect. So it has had about one year's experience. It should be borne in mind, as intimated, that this board takes the place of a trade agreement, and that all parties must abide by its decisions or the decisions of the umpire appointed in accordance with the provisions of the award.

Mr. John Mitchell, the president of the United Mine Workers of America, has stated recently in a public address that this board is working with fair satisfaction, and that there is, on the whole, a state of industrial peace and harmony in the anthracite coal regions. There are, in round numbers, about 150,000 people affected by the award of the Coal Strike Commission. One would expect, therefore, that a great variety of complaints would be brought before the board,—complaints regarding not only important matters, but trivial matters involving or affecting individuals or small groups of individuals. The three members of the board representing the operators have informed me without hesitation that they believe that the miners are trying sincerely, and to the best of their ability, to abide by the award; while the representatives of the miners, on their side, have given an emphatic assurance that the operators are doing all they can, and sincerely, to carry out the provisions of the award of the commission. Such statements ought to set at rest the accounts appearing from time to time in the press that there is great

discontent, that the work of the Coal Strike Commission is repudiated, and that there is great indignation at some of the decisions of the umpire.

As a matter of fact, the total number of grievances presented during the year is only 116. This, for such a vast interest and with such a large number of employees involved, is decidedly satisfactory. The board of conciliation has acted upon 71 grievances: it has sustained 17, and rejected 19. 17 of the cases have been withdrawn by the petitioners, and 18 grievances have been adjusted locally without the action of the board. Some of the cases that have been acted upon are very important, the most important, perhaps, relating to the payment of the increase awarded by the Coal Strike Commission. The question arose as to whether this payment should be on net or gross earnings. It was settled by the board itself, without reference to the umpire.

The figures quoted as to cases sustained, not sustained, withdrawn, etc., present the most encouraging feature of the work of the conciliation board. Very few new cases are now being brought before the board. The remainder of the 116 are not important, but relate very largely to the claim of some individual that the award works unjustly to him personally or to some minor matters of adjustments, etc. The board has had many sittings, and serves without pay as a board, the general expenses being paid jointly by the operators and the miners' unions. As but few new cases are being brought before the board, it is reasonable to suppose that for the two years during which the award is still to run it will not be called upon to adjust many grievances.

The decisions of the umpire, which have been almost entirely against the claims of the employees, because they have run counter largely to the provisions of the awards of the Coal Strike Commission in some respect, have been accepted and acquiesced in, not without some protest, but absolutely without any outbreak or any disposition to violate them.

This record indicates without question that, after two years more of experience under the arbitration provided by the Coal Strike Commission, the parties in the anthracite regions will become more fully acquainted, will get their petty grievances adjusted, and thus be in a condition at the expiration

of the award, two years hence, to make a joint agreement that shall comprehend most of the vexatious questions which have in the past disturbed the peace and the prosperity of the coal country.

2. CONTENT IN WORK.

BY CHARLES W. ELIOT, PRESIDENT OF HARVARD UNIVERSITY.

The winning of satisfaction and content in daily work is the most fundamental of all objects for an industrial democracy. Unless this satisfaction and content can be habitually won on an immense scale, the hopes and ideals of democracy cannot be realized. Therefore, joy in work should be the all-pervading subject of the industrial discussion; for it is at once motive, guide, and goal. It is only in the less skilful employments of mankind, which are also the commonest, that any question arises concerning the possibility of satisfaction and content in daily work. All the nobler employments give much pleasure. Every professional man, every business man, and indeed every person in whose occupation there is free competitive play for intelligence and judgment takes pleasure or joy or satisfaction in his daily work; and his interest in his work does not depend principally on the amount of pay he receives for it. He gets from it a large satisfaction independent of and in addition to its pecuniary returns. The real question, then, is whether the satisfactions of the higher employments can be measurably obtained in the lower. On the right solution of this problem depends the whole future of the industrial democracy; for there can be no public happiness without content and satisfaction from the daily work of the masses of mankind. Let us, then, inquire what the sources of satisfaction in work are and must be.

The first source is the pleasure that the natural, healthy man takes in exertion,—in using his bodily and mental powers. There is, undoubtedly, a real pleasure in the mere use and exercise of one's powers. All the active sports illustrate this fact. In many of them the exertion is great and prolonged, and one might almost say that in any one sport the pleasure or satisfaction was proportionate to the exertion. In rowing, cycling, "hare and hounds," and the competitive games of ball, including all the varieties of tennis, the effort of both mind and body is strenuous: in hunting and fishing the effort

is not only strenuous, but is apt to be very prolonged; and yet nobody doubts that these sports are enjoyable, and that it is the effort which is in large measure the source of the interest and satisfaction. What is true of the manly sports is also true of manly labor.

The next source of genuine satisfaction lies in achievement; that is, in doing and accomplishing something worth while. The satisfaction in having done something well is universal, and comprehends absolutely all kinds of employment. It is not at all necessary that the achievement should be a great one or that its quality should be fine or artistic. There is satisfaction in digging a ditch and seeing the water of a stagnant pond or meadow drain off through it. I lately saw a group of laborers dig up an elm-tree thirty-five feet high, wrap its roots, get it on wheels, carry it a quarter of a mile, and plant it again in a big hole which they had previously dug with much hard work. The job was intelligently and carefully done, and that large tree is now leafing out, though no earth was brought with its roots. Every man of the group that did the digging looks at that tree with hearty satisfaction. Its safe transplanting was an achievement. Competitive achievement is more pleasurable than achievement without competition, as all the sports prove, as well as all the competitive industries. Competition needs liberty and hope and a determination towards progress. Therefore, competitive achievement is a precious reward. Even the defeated are glad to have been in the race.

Thirdly, the co-operation of a few or of many persons in achieving—as, for instance, in successfully making a valuable product—is a legitimate source of constant satisfaction, particularly if the co-operation have an element of rhythm or harmony. The industries, like the sports, afford innumerable instances of the satisfaction which naturally springs from such co-operative effort. This is one source of the pleasure a sympathetic boat's crew take in their laborious and somewhat monotonous rowing. This is one source of the satisfaction with which all hands on deck will pull together on the braces or the main-sheet. In a higher form of intense and difficult co-operation this is the source of pleasure in the hard work of an orchestra or a great chorus. Human nature

responds with joy to co-operative effort towards any productive or creative end.

Again, the exercise of intelligence, judgment, or skill, in any labor, gives satisfaction. Putting one's mind into one's work, so that attention is keen and every effort well directed, is a prime source of joy in work, no matter what the work may be. It is the fashion, particularly in labor unions, to complain that in many kinds of work called "manual" there is no joy. That can only be the case in labor of a kind which precludes the exercise of the mental faculties, because joy in the exercise of those faculties is absolutely inevitable. I have been unable to discover any modern employments, even those called the lowest, in which there is not large play for intelligence, alertness, and good judgment. I have never yet observed men seriously and honestly at work who did not seem to me to have ample opportunity for the exercise of both intelligence and judgment. Of course, one often sees in these days men nominally at work who are not using their minds or their wills any more than they can help; but it is not their occupation which deprives them of the satisfaction of working with intelligence and judgment. It is their characters, their personal quality. I have lately received a considerable number of letters and newspaper cuttings calling my attention to specific employments which the writers supposed to be destitute of this source of joy, and I have been urgently advised to make trial of some of these employments. Every one of them, without exception, seems to me to provide amply for the satisfaction now under discussion. The last comment of this nature, received this week, related to the occupation of a motorman on an electric car. This strenuous, open-air occupation seems to me to afford a perfect illustration of the high satisfaction or content that may be derived from an employment which at first sight seems to need muscle rather than mind. The motorman must, indeed, be strong in body; but he must be much more. He must be always observant and on the alert. He must be steady, cool, collected, and ready to meet with instant decision a new condition or an unexpected event. He handles a fine machine for which he is responsible, and he must be incessantly watchful for the safety of his machine and of the people in his car and on the

street. There is much for him to learn about his machine and the right management of it. If that occupation, under those conditions and calling for those qualities, cannot yield the fit man satisfaction and content, there is no human occupation that can yield content.

In many occupations another element which proves a source of frequent satisfaction is risk, or danger. This is a characteristic of all the manly sports and of many of the fundamental industries, like mining, sailing the ocean, handling domestic animals, quarrying, and lumbering. The danger must be visible and open, not hidden or mysterious; and it must be avoidable by the exercise of foresight, courage, and skill. Probably it is the successful avoidance of the danger which gives the pleasure, although there is an unquestionable pleasure in looking back at some perils which were not altogether avoided, though survived. The natural, human pleasure in adventure is a combination of the pleasure in novelty and the pleasure in risk. The satisfaction in having successfully encountered danger is for most men a durable one. It is experienced when the danger is fresh; and it is always looked back upon with satisfaction, even though extreme labor and hardship accompanied the successful encounter. Any occupation that combines avoidable risks with uncertain productiveness has in it two large elements of interest, and therefore of possible satisfaction. Thus the miner's occupation in which it is uncertain how much coal or ore a given expenditure of labor in drilling and blasting will produce, has these two elements of satisfaction. Every trading operation has in it the interest of adventure.

Finally, those occupations which, like the building trades, present from day to day or from year to year new materials, processes, designs, and products,—and in these days what occupation does not offer many elements of novelty,—give to the life of the workman the interest of variety, with new things always to learn. The higher employments all offer a large variety from year to year, and even from week to week; but the lower employments, too, offer to ambitious and alert workmen a large variety of mental and bodily occupation. A middle-aged printer lately said to a friend of mine, "I have been thirty-five years in a printing-office, and still I learn some-

thing new about printing every day." Indeed, it has been characteristic of the last thirty years that all the main industries have been made over, root and branch.

The principal sources of satisfaction and content in daily work are, then, the active exercise of one's powers; achievement, or the getting well done something worth doing; harmonious co-operative effort; putting mind into work, or using judgment and skill; successfully encountering risk; making adventures; and mastering novelty and variety.

It is unquestionably easy to have all satisfaction in daily work destroyed by the imposition of conditions which make satisfaction impossible. If labor is pressed beyond the limits of strength and health, content in it is impossible. Any overwork destroys the physical basis of satisfaction in toil. If the hours of labor are exaggerated, so that reasonable time for meals, family life, recreation, and sleep, is not to be had, the due satisfaction in toil will not be realized. The conditions of modern urban life tend to develop in the American population an unreasonable haste and stress in both work and play. This haste and stress are quite as highly developed in the higher employments as in the lower; and, relatively to numbers, overwork now prevails in the higher employments more than in the lower, probably because there is more and keener pleasure in them, and they are therefore more liable to be pursued with an inordinate zeal.

For a hundred years there has been going on the substitution on an immense scale of manufactured, mechanical power and machinery for human muscle. The individual workman has therefore more directing work to do and less bodily labor to perform. In the modern quarry or mine a machine does the drilling. On a large vessel the sailors no longer hoist the sails or weigh the anchor; the halyards and the anchor-chain are wound up by a donkey engine, and the cargo is put in and taken out in the same manner. The laborer's function is more and more the function of directing and watching machines. His responsibility has become greater; his product, multiplied through the machine, is larger; and his need of sound judgment and intelligent decision has become more frequent and imperative. In short, his opportunities for the use of his mental faculties, as distinguished from his bod-

ily, have greatly multiplied; and hence his chances of winning daily satisfaction in the methods above described have greatly increased. Greater responsibility of course brings with it higher wages. Large-scale agriculture exhibits these changes in a striking way.

On the other hand, there are two tendencies in the organization of modern industries which are distinctly adverse to the winning of satisfaction in daily toil. The first is the minute division of labor, which in some industries reduces the variety, and therefore the interest, of the workman's occupation; and the second is the monotonous character of the work of tending, day after day and year after year, the same machine making the same product,—a monotony which is, however, comparatively rare, inasmuch as in most industries machines change frequently, and process and product more frequently still. In general, the variety in the labor of the individual workman has undoubtedly been diminished by the transfer of a large proportion of the population from farm work to factory work; for none of the ordinary occupations in mills or shops afford such variety as farm work affords. The work of the farm hand changes with the month and the season and with the hour of the day, whereas the weather, the seasons, and the time of day have comparatively small effect on the work of the mechanic, the operative, or the salesman. The trade unions are apt to object to piece-work because it develops in the work-people a rapid rate of work,—a rapidity from which the employer may, in the long run, gain an undeserved advantage. A much more sensible objection to piece-work would be its monotony and its tendency to substitute the good-enough for the excellent as its ideal. So far as piece-work becomes by repetition automatic, it reduces the satisfaction in the work itself to that of competitive achievement, and makes the wages earned thereby the chief reward.

If this description of the sources of joy in work is correct, it follows that several of the doctrines and policies of the trade unions are not intelligently directed towards increasing the well-being of workingmen. Let me try to enumerate some of the wrong directions in which the unions are pressing. In the first place, uniformity in the conditions and rewards of labor cannot be an end desirable in itself. The conditions

in different industries ought to differ with situation, climate, and the nature of the work. Not only should variety be welcome among the industries, but in any given industry variety should be welcome in different places and at different stages of development. The uniform wage, whether called minimum or maximum, is a direct interference with the real sources of satisfaction in daily work. Each individual workman should be free to do his best, both in quality and quantity, and so to win the natural satisfactions which come from the exercise of skill and judgment and from competitive achievement. The doctrine of minimizing the day's work through defining it by an inadequate number of bricks to be laid, ems to be set, lead joints to be wiped, or glass bottles to be blown, saps the very foundation of both efficiency and happiness in daily labor. That American labor remains as efficient as it does, even in many unionized trades whose trade agreements contain such unhappy limitations, proves that thousands of union men do not carry into practice this debilitating doctrine. Again, promising novelties in any industry should be welcomed, not hindered. Thirdly, competition, instead of being treated as an evil, should be welcomed as a source of liberty and progress, both for the individual workman and for the different classes and grades of workmen, competitive achievement affording a wholesome satisfaction in all occupations. Fourthly, the opportunity for zealous, hearty work, with excellence as its ideal, should be earnestly sought by the individual, because with this opportunity comes a keen satisfaction in all the higher employments, and in all the lower employments which, by development and improvement, can be brought to afford such opportunities. This would be the importation into common productive labor of the artist's motive and method.

Turning now to the employer's side of the industrial situation, and applying the principles herein laid down to his function, we find that the intelligent employer will best promote his own interests by so conducting his industry that the people who work in it can win natural and wholesome satisfactions in their daily toil. He will therefore take every precaution against overwork and for the preservation of the health and strength of his employees. He will try to diminish monot-

ony and anxious stress, to secure liberty for the individual workman, and incite him to personal growth and progress, and to promote throughout his establishment competitive achievement, harmonious co-operation, the exercise of skill and judgment, and the introduction of novelty and variety.

For the carrying out of these purposes on both sides of the industrial strife the new tendency toward small industrial establishments scattered wherever mechanical power is electrically distributed is greatly to be welcomed, because such small establishments, when numerous, promote the independence both of small employers and of small groups of workmen, and easily unite in the pursuit of a common interest the employer and the employed, the capital and the labor.

Finally, happiness is a state of mind much more than a state of body, provided that the elementary necessities for the well-being of the body are at hand. The causes of the prevailing discontent are not in the circumstances of the people, but in the minds and hearts of the people themselves. Good will is only a state of feeling; yet, if good will could be established throughout any industrial organization, its economic effects would far transcend those obtained by collective bargaining and arbitration, useful as those methods of combat have proved to be. The industrial democracy needs to rectify its aims and its ideals, not confining its efforts to improving physical conditions or to raising wages. To promote this rectification, it seems to be essential that both employers and employed should come to understand much better than they do now the conditions under which satisfaction in daily toil becomes not only possible, but natural and inevitable.

3. SOME PRACTICAL PRINCIPLES OF WELFARE WORK.

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From its beginning, history has recorded conflicts between those having intelligence, wealth, and political power, on the one hand, and the ignorant, poor, and unenfranchised, on the other. Owing to modern political conditions and the industrial evolution of the last century, the old historic strife is assuming a new form.

It is not now a question of winning political rights or educational advantages, but of properly using these in the endeavor to win a larger share in the rewards of modern industrial undertakings. In America we have also an entirely new problem, that of absorbing into a democracy millions of aliens, of various languages, traditions, and customs, and unacquainted with our institutions and the spirit in which they were founded. It may be claimed, and perhaps justly, that our institutions are no more endangered by this foreign element than by our American-born citizens, that the danger is not so much from ignorance as from want of principle.

The education given by our public schools has been depended upon to solve these problems; and in the assimilation of our foreign population our schools have been, and will be, the most important agent. Unfortunately, the majority of the children most needing it, at an early age, are taken out of school to enter the ranks of the workers; and it is necessary that their civic and economic education, begun in the school, should be continued, and that, as they become a part of the great industrial system, their training should be such as to enable them to improve their conditions of life, and should fit them to fulfil their duties to the family and to the State. To meet these new conditions, many of the largest employers are adopting a new method of dealing with their employees.

Strictly speaking, it is not a new method: it is as old as human nature. It is simply that of meeting others, and en-

couraging them to meet you, in a spirit of fair-mindedness, mutual confidence, and a desire to deal honorably with each other. It is new in the sense that large employers are beginning to realize that in bringing together large numbers of workers they assume certain moral responsibilities; that it is both their duty, and for their own business interest, that their relations with their employees should be friendly; and that the conditions under which their employees work and live should be such as to develop good citizens. The method is also new in the sense that it is to be applied, not in a theoretical, emotional, haphazard manner, but in a practical, hard-headed, scientific way, after a careful study of the conditions in each separate case. Numberless and discouraging failures have been made, and more will be made; but we are now getting on the right path, and can point out certain milestones and guide-posts and warn the unwary against certain quagmires and pitfalls.

In the first place there is a logical sequence in which this new method, or welfare work, should be undertaken. You cannot build the superstructure of a house before preparing its foundation, neither can you succeed in welfare work until you have conformed to certain principles of justice and civic duty.

First and foremost, the employer must pay the full rate of wages current in his line of business. In fact, if he is successful enough to attempt welfare work at all, he had best pay a little more than the current rate. He will thus secure the pick of the workers, and the difference between the best and the poorest is worth some advance in wages. But the main point is that by so doing he prevents his operatives from claiming that the cost of his welfare work is paid for out of their wages. The slightest suspicion of this will kill any welfare work he may undertake. Nevertheless, it is important that the employees make some contribution in the form of club dues or nominal charges for classes, in order that they may not feel that they are accepting charity. No welfare work can continue to be a success unless this is done to some extent almost from the start; but it must be a voluntary contribution by the workers, and not a forced one through acceptance of lower wages. No welfare work can be of permanent value unless those benefited make some personal contribution.

After wages, the next step forward is to look after the conditions under which the people work,—the heating, lighting, ventilation, cleanliness, and sanitation of the work-rooms, and possibly the introduction of luncheon and rest rooms for the use of those who do not return to their homes at noon. In a large city this may be all that can be done. The work-people may or may not realize that they are working under improper conditions; but in either case the employer should put his own premises in order before attempting anything else.

In the case of a successful business the rate of wages and the conditions of work depend entirely upon the employer. The employees may, by strikes or otherwise, bring pressure to bear on him; but they can of themselves do nothing. The successful employer is, therefore, simply performing a civic duty in maintaining fair wages and proper conditions for work.

Outside of the work-rooms the methods to be used depend upon the various conditions existing. In the case of a country mill, especially where the employer provides the dwellings, the housing problem is the most important. Perhaps the greatest influence in the life of a human being, man, woman, or child, is the home and its surroundings; and the employer of labor who provides the housing for hundreds or thousands of work-people has in his hands an untold power for good or evil. Given a good, healthy country location, good schools, good homes, and intelligent welfare work under a just, able, and conscientious management, and we need have no fear of the effect of foreign immigration or of serious disputes between capital and labor. I say serious disputes; for, while no amount of welfare work will surely guard against dissatisfaction, and in times of great industrial excitement possible strikes, still it is safe to say that, under just and benevolent conditions of employment, strikes will be of shorter duration and leave less bitter feeling.

There are several difficulties in taking up housing as a part of welfare work. The amount of capital required can only be furnished by fairly wealthy concerns, and the care of such property is an added burden upon the manager. No attempt has been made by manufacturers in the centres of large cities, but some successful attempts have been made by large concerns in the country or in the suburbs of cities.

As an illustration of what has been successfully accomplished, I give the following description of the building up of a village of some four hundred homes:—

With the growth of the business the first problem was the laying out of streets and the building of houses. The managers believed that they assumed a personal responsibility for the conditions under which their operatives work and live. They believed that environment has a great deal to do with character, and also that character is a factor in the efficiency of work-people. It has therefore been their aim to make the village an attractive place in which to live, and as far as possible to stimulate and assist their employees in matters of recreation, amusement, and educational development.

The original intention was to encourage the private ownership of cottages; but, after several sales were made, this was thought to be undesirable, except in case of small farms outside of the village. While the original purchaser might be satisfactory, the property was liable to pass into undesirable hands; and the enforcing of restrictions as to pig-pens, hen-yards, and other nuisances, might be resented. The cottages sold have been bought back as opportunity offered. Their rents are very low; and one of the purchasers, who resold, admitted that his interest, insurance, and repairs cost him more than the rent paid by his neighbors.

The first houses built were planned by architects more with reference to outside appearance than to meet the conditions required by the people who were to live in them; but of recent years the managers have made a careful study of plans, in order to provide, at the least possible cost, cottages which will meet all the requirements. Each cottage as built has been planned to remedy some defect in a previous plan, to incorporate some improvement suggested, or to lessen the cost of construction. The tenants have been asked for criticisms and suggestions, which have been acted upon, when approved. Each family has its own ideas. Some prefer stairs opening from the kitchen, some from a front hall; some wish the bathroom upstairs, others downstairs, etc.: hence a variety of plans, substantially of the same size and cost.

In planning these houses, the following considerations have been constantly in mind: economy of room; economy of

heating; economy of work in the care of house and children; the largest available amount of sunlight; economy of cost; and simple and well-proportioned outlines.

The first attempts at individual cottages were failures. The cottages were too expensive, and the tenants did not take proper care of them. A number of old-fashioned tenement houses were then built, some with eight tenements to a house. These proved even more unsatisfactory than the single cottages; and but few of them were built, another and successful attempt being made to introduce single houses. For several years no houses were built for more than two families, and these only for the sake of securing economy in building the smallest cottages. All of the modern houses have bath-rooms, and the larger ones furnaces, if desired. In order to economize village lots and also to give a choice in the selection of a home, two blocks of six and nine room houses have been built, and over the store and village restaurant eighteen (18) suites of steam-heated rooms, thus making possible a very simple form of housekeeping. At the present time these apartments are unpopular, apparently because it is the fashion in the village to have a separate cottage; and operatives who have already lived in flats in other villages refuse to accept even a better one than they have been accustomed to, and demand a cottage. It is hoped that in time this feeling will disappear, but it illustrates how local or class sentiment will often interfere with the best-laid plans of welfare work.

After good homes the most important need is that of rational amusement and healthy recreation. Development on these lines requires much closer co-operation between employer and employee; and here we first meet the difficulties of organization and management, which are the greatest obstacles to overcome. In America we are at once confronted with perhaps half a dozen different languages and national and religious prejudices, also local jealousies and personal dislikes. To harmonize all these different elements, to interest them in the proper forms of amusement and recreation, to organize them, to unobtrusively influence them in adopting the best methods and choosing the best officers, is a work requiring personal qualities of a high order. This personal work can rarely be given by the manager, either from lack of time or

of qualification; and it is now admitted that this work must be committed to a man or woman especially fitted therefor by personality and training. The name for this position, adopted by the Welfare Committee of the Civic Federation, is that of "Welfare Manager." In large works, especially where the conditions are complicated, the services of a competent welfare manager are absolutely necessary. His position should be that of manager, not for the employer, but the employees. He must win the confidence of the employees without losing that of the employer. The employer must expect mistakes to be made, but he must trust to time and experience and the tactful advice of the welfare manager. Very often, upon the organization of clubs or associations, the employees elect the welfare manager to some responsible position.

As regards buildings for the use of the employees, so much depends upon the location, the financial means, and other considerations that it is hard to set down any invariable rules. While in construction and appointments they should be refined and in good taste, they must be in harmony with the living conditions of those who are to use them: otherwise the people will not feel at home, and will stay away. The special requirements in each case should be carefully studied. If possible, the employees should feel some distinct need, and have some settled ideas as to what they want. What the experience of others has taught that they really need, and what they think they need, may not always coincide; and it is the duty of the welfare manager to harmonize these differences before deciding upon any permanent building. In the mean time it is well to use temporary quarters, if satisfactory ones can be obtained.

Before putting up a permanent building, it is wise to experiment in the next form of welfare work, that on educational lines. First, by encouraging a taste for good reading and by organizing classes in sewing, cooking, and other branches of household economy. Next,—and this applies especially to the men,—encouragement should be given in organizing classes in subjects that have a special bearing on their own work. In this educational branch of the work little success can be expected, except with the children and younger people. The welfare manager should be in close touch with the schools, and the school authorities should study to train children to meet

the conditions of life which the children have before them. Instruction in cooking and household economy, and, in the country, practical lessons in gardening, should be begun in the school. The interest thus acquired by the children can be developed still further by the welfare department, and will show results that can never be obtained by starting with adults. In a community thus trained from childhood there should be no difficulty in reviving the old-fashioned neighborhood exhibits of house and garden work. As an illustration of a partially successful attempt at welfare work, I give the following:—

About twenty years ago a room fitted with various small games was set apart as a smoking-room, but the attendance became so disorderly that after several forcible ejections the room was closed. Some years later, the general tone of the village having much improved, the attempt was again made. An unused part of a new mill was fitted with bowling alleys, pool tables, and other games.

At this time an organization was formed, which still exists. This association of the employees has its board of directors; and many of the heads of departments of the corporation have taken an active interest in the development of the association, thereby giving stability and continuity to the movement.

In 1898 the association was crowded out of its quarters, as the space was needed for manufacturing purposes; but on the completion of a new warehouse the whole upper floor was reserved and equipped for social rooms.

The association has been actively interested in athletics; and by always insisting upon clean sport and gentlemanly behavior it has been able to arrange games for its teams in a class above that occupied by teams from the neighboring towns. During the last year the corporation has laid out an athletic field, of about six acres, containing a quarter-mile running track and fields for baseball and football, all enclosed by a high board fence. This will be under the control of the Athletic Association.

In addition to the social rooms occupied by the association the corporation has for the past three years been able to furnish unoccupied mill floor space of over half an acre, heated and lighted. This is used in turn by the men, the women, and

the boys. Here the football and basket-ball teams have their winter practice, and here are held the Saturday evening dances.

The discipline of self-control and the demand for fair play in all sports has had an influence in every department of town and home life. Men learn to work together by co-operating in team work and in social activity, and success in athletics has fostered a pride in the village which will be a help in all other work.

An institute for women has been supported for the last three years. The old office building was remodelled and refitted to meet the needs of a social and industrial girls' club. Parlor, reading-room, office, class and game room, were suitably furnished.

Physical culture has been the most popular and perhaps most useful of its educational features. Notwithstanding hard work in the mills, interest in physical training has been intense among the young women, and naturally with beneficial results. The instruction has been in Swedish gymnastics, somewhat modified to make them popular and recreative, and, in games, principally basket-ball in winter and tennis in summer.

A beginning has been made in cooking, sewing, and kindred domestic classes.

The social features have been dances among the girls themselves and a reading and entertainment class, giving monthly entertainments.

In the spring of 1903 the girls organized as "The Girls' Institute Association," and have, through their board of directors, outlined and directed their own work and sport. It is hoped that with the assistance of a managing matron, paid by the corporation, this association may be able to organize and direct successful methods of providing amusement and education in hygiene and household economics. Notwithstanding the experiment of some years the managers are not prepared to erect a permanent institute building, nor do they know where one has been built and organized to successfully meet their conditions.

In the earlier days of the factory system it was not uncommon for the owner to be his own manager, to live among his work-people, and to be personally acquainted with many of them. Under these conditions the slightest discontent would

soon appear upon the surface, and could be adjusted by a frank talk. This sympathetic relationship can be partially restored by regular social gatherings, where the owners, managers, or even interested guests, can sit down with representatives of the workmen, and after dinner have a man-to-man talk over their cigars. Whether the subjects under discussion are general or refer to grievances, such talks cannot but result in a better mutual understanding and more harmonious relations, and may in time become of national value.

In a recent address, President Eliot has indorsed the claim of the intelligent workingmen for a voice in "the maintenance of the good discipline of the works." Under ordinary factory conditions such an attempt would result in disastrous failure; but the principle is right, and education in organization and administration should be a part of welfare work, not only for the employer's business success, but as a matter of national safety. For it is a most anomalous condition that millions of people should be governed in their daily industrial lives by a despotic oligarchy, and yet be expected to realize their duties and responsibilities as citizens of a great democracy. No community of work-people is fit to maintain the discipline of its works until it can organize and manage its social and educational activities, and here should begin the training in the working of democratic institutions. The necessity for this education is becoming more apparent to those interested in industrial welfare work. Many of the failures are now seen to have been the result of unaided and inefficient management by the operatives or of too great paternalism on the part of the employer. The problem before the welfare manager is to steer between these two dangers.

When the working-people have organized forms of amusement, recreation, and education, when they can administer them successfully year after year, when they have shown themselves so just and fair-minded that their employers are ready to give them a voice in the discipline of the works, then the work of the welfare manager is finished; and the working-people can consider the next step in industrial evolution, that of co-operative production under their own management. I do not suggest this as a practical possibility under ordinary factory conditions, but as a field for thought in which the imagination can wander.

To those who read accounts of welfare work, it may seem a most simple and easy matter to create a model community, build attractive houses, establish an institute with a trained welfare manager; and they think the rest will naturally follow. How little they realize how much time, work, tact, patience, perseverance, and charity will be required to bring about the desired result! They will encounter racial prejudices, local and personal jealousies. They will have to repress the inefficient would-be leaders, and draw out the efficient but reluctant ones. We sometimes read glowing accounts of welfare work and shortly afterwards hear of the establishment being the centre of a disastrous strike; later, possibly, that the whole attempt has been given up as a failure. Then it is safe to say that it was not conceived in the right spirit nor carried on in the right spirit, that it was either dictated by self-interest or executed in a spirit of condescending patronage; for, while such work, as already stated, may not prevent strikes, strikes certainly ought not to end honest and well-organized welfare work. Welfare work to be successful must, first, be free of any suspicion that it is designed to take the place of wages; second, it must not be too paternal or suggest that the recipient of its benefits does not know how to obtain them himself; third, the ideals aimed at must not be too far removed from actual conditions; fourth, at the outset, as far as possible, and continually more and more, the people should be encouraged to take part in the management.

It may be stated generally that experiments in welfare work have been judged too hastily to have been successes or to have been much greater successes than they really were. Many have been failures,—of these we rarely hear; and yet failures are often as instructive as successes, and a knowledge of the causes of previous failures would save many future ones. Successes are sometimes due entirely to some strong personality, and supply no lesson as regards methods: whereas failures must be the result of either method or personality.

In many instances so much is written about the welfare work carried on by certain concerns that it has the appearance of an advertising scheme; and, if the recipients of its benefits receive this impression, much, if not all, of its value is lost. I have been told by the secretary of the National Civic Federa-

tion that, in reply to inquiries regarding welfare work, some concerns have referred him to their advertising department.

Now the relations between employer and employee, even under the most favorable conditions, are somewhat delicate. The employee is suspicious. He is not likely to credit his employer with any high altruistic motives. Any welfare work on the part of the employer is looked upon as primarily something for his own benefit; and, if the employee sees such work continually described and praised in print, he is confirmed in this impression. Moreover, such advertisement is often offensive to the worker's sense of pride and independence. In the descriptions of wash-rooms and portable book-cases he sees an implication of certain deficiencies in his own home. The deficiencies may exist, but that does not salve his feelings. Would it not be well if published accounts of welfare work were made without disclosing names, except on special inquiry by those who wish to make a personal study? When it is impossible to keep accounts out of the papers, steer the reporters as best you can. Ask them to omit any mention or any pictures of the managing men. Get them to interview the work-people themselves, and write up an article from their point of view. It may not be as flattering to the employer; but it will be nearer the truth, and a vastly more valuable contribution to the literature of the subject.

The reforming value of welfare work will depend largely as to whether larger manufacturing concerns locate in the city or in the country. Formerly a country mill was supposed to pay lower wages, and in whole or in part to run economically by water power, while these gains were somewhat offset by higher freights. Of recent years the improvements in steam engineering have reduced the cost of transportation to the country mill and also the cost of power to the city mill; and the great influx of foreigners has tended to reduce the wages in cities as compared with the country, especially for unskilled workers.

With the cheapening of power, and the more extended use and greater effectiveness of machinery, the rate of wages and the efficiency of the laborer have become greater factors in the cost. I have already said that welfare work must presuppose the full scale of wages. I will now say, further, that experi-

ence has shown that in cases of undesirable work it tends to raise wages above the ordinary level.

There are certain forms of work that are unavoidably undesirable, but will be accepted by a workman brought up to them and accustomed to living in sordid surroundings. The same workman brought to a neat country home, and surrounded with refining influences, will in a short time revolt from the old form of work; and the employer will have to pay higher wages, invent some way of improving conditions, or give up that form of work.

I think it is safe to say that there are some forms of industry which would be injured by welfare work; but these are the exceptions, and will naturally be carried on in places where the surrounding conditions are in harmony. In saying this, I hope I do not in any way discourage such work. The rule is that welfare work benefits the employer as well as the employee. This is simply a case where "the exception proves the rule."

Apart from industries of this class, it is to be hoped that the tendency will be to favor country locations. The excitement of city life and the varied opportunities of work for the different members of the family offer strong attractions. On its amusement side, welfare work counteracts the dulness of the country: on its educational side, it develops appreciation of a healthy country life; and the two together create a workman more contented and intelligent than his city brother. The general adoption of welfare work will therefore tend to develop labor conditions favorable to country mills. It is also to be noted that in certain lines of business the tyranny of the city unions is driving manufacturers into the country.

An employer who uses one class of labor largely, say women and children, as in textile mills, often prefers to locate in a city or near some manufacturing industry employing men. By the introduction of country trolley lines the city is losing this advantage, as villages miles apart are now able to make an exchange in forms of labor.

If the country, with its trolleys and its welfare work, can offer more manufacturing advantages than the large cities, then we may look for a great improvement in the condition of our manufacturing population.

4. "A SEVENTEEN-YEAR TRIAL OF PROFIT-SHARING."

BY SAMUEL CABOT, ESQ., CHEMICAL MANUFACTURER,
BOSTON, MASS.

A plain tale is soon told, and I shall only steal a moment between the distinguished orators of the day to state a few facts acquired by actual trial of profit-sharing during the last seventeen years.

At a very early period in my business experience it appeared to me that the rewards ordinarily offered to the wage-earner were not such as to stimulate him to the best exertion nor foster in him the best and kindest feelings toward his employer.

Even to-day is it not true that in the great majority of cases the wage-earner's only stimulus is the desire to hold his job? In fact, is not the fear of discharge the only incentive to exertion in a large majority of cases?

Feeling as I did, and still do, that men can always be led more successfully than they can be driven, that Hope as leader and captain can accomplish more than Fear as tyrant and slave-driver, I set myself—ignorantly and crudely, to be sure, but earnestly—to try to better things. My method has grown to be essentially as follows:—

Every man who enters my employ is given the current rate of wages for similar work. If he desires also to participate in the profit-sharing, he is required to sign a paper in which he promises to do his work as quickly and carefully as possible, remembering that the greater the yield the larger the profits, and to give me sixty days' notice before leaving me.

On my part, I promise to divide at the expiration of each six months a certain fraction of the profits among the participants, strictly in proportion to the wages of each during that period. This sum in each case is divided into two equal parts, one of which is given in cash to the employee and the other is deposited in a savings-bank by me as his trustee.

This fund in the bank is in the nature of an insurance upon the life of the employee, and is given over with interest to his

executors, if he dies. It, however, does not come back into my hands. If he should, for instance, refuse to give me sixty days' notice on leaving me, although he had already received an equal amount in cash upon the promise to give me such notice, the money would not come back to me, but would simply be distributed among the other participants at the next division.

The same is true in case of his discharge for cause.

In case of sickness I am empowered at my discretion to draw upon his fund, though in temporary cases I always put sick men on half-pay for a considerable time without recourse to their fund. I also have the right to lend him money upon it to build a house. And now let me give you a few figures.

The system was begun a little over seventeen years ago, and has gone on uninterrupted up to the present time. The profit-sharers at the outset numbered 21, and to-day number 42. The total amount paid out by me has been \$40,464 during that period. Now the natural question which you all will ask, I think, is, Has this been a good bargain? I think you will all agree that in the ultimate analysis no bargain is a good bargain that is not profitable to both sides. Well, there will, I think, be no dispute that from the workman's point of view the bargain has been a good one, as he has a very considerable addition to his wages, which were as high as other labor of the same kind; and I may say that the average wages have steadily advanced as the efficiency and skill increased.

But now comes the question of my own investment. What means have I of knowing that the efficiency of the workmen has been increased to an amount equivalent to the \$40,464 which I have expended?

I will now give you a few more statistics which bear upon this question. Let me remind you that the same proportion of the profit was paid to the 21 men who first entered the agreement that is now paid to the 42 men who compose the present corps. But now note this very significant fact. While the first payments averaged about 10 per cent. upon the wages of each man, the last payment—which was larger than usual, to be sure—was exactly 21 3-10 per cent. of their wages.

It seems to me obvious that, if we can draw any inference from these facts, it is that, in as much as my profit compared

to the wages paid has increased, the efficiency of my workmen has improved.

But, above all, my own observation has convinced me that the *morale* of my employees is much superior to the average, and that they are more contented and willing by far than is usual in similar establishments. In fact, I am satisfied that this bargain has been a good bargain, a good one for both parties to it, and that the extra money I have laid out has been well and profitably invested.

I have, for obvious reasons, not laid any emphasis upon the philanthropic side of this enterprise, especially as I am sure it can be recommended to many, if not to most, manufacturers, and to their employees, purely upon its utilitarian advantages; but it is obvious that it stimulates both sobriety and thrift in workmen, and that it can be made to assist men of family to build homes for themselves, thus surrounding the factory with the homesteads of men who are interested in its success and that of the neighborhood.

From my seventeen years' experience, therefore, gentlemen, I can cordially recommend profit-sharing on this or a similar plan as of marked advantage to both employer and employed.

III. DEPARTMENT OF HEALTH.

I. ANIMAL EXPERIMENTATION.

BY HAROLD C. ERNST, M.D., OF BOSTON, MASS.

While thinking upon the subject I have been asked to treat to-day, I chanced upon the editorial comment of the *Outlook* on two papers it recently published concerning animal experimentation, or—as it is there called—Vivisection.

This comment seems so pertinent that I have ventured to transcribe a portion of it, for it is well to show at the outset that the position I may take in this matter has the very recent support of high ethical authority.

After speaking of the nature of the articles printed, the comment goes on to say:—

Man's relation to the lower orders of creation is accurately expressed in the account by the ancient prophet, who wrote the account of creation in the first chapter of Genesis: "And God blessed them, and God said unto them, Be fruitful and multiply, and replenish the earth, and subdue it; and have dominion over the fish of the sea, and over the fowl of the air, and over every living thing that moveth upon the earth." The animal creation is made for man, and he has a right and a duty to use it in whatever way will best minister to his highest life. He has not a right to treat animals cruelly, because all cruelty is wrong, and because cruelty does not minister to man's highest life, but dishonors and degrades and deteriorates him.

But with this definition, which is a definition and not a qualification, the fish of the sea and the fowl of the air and every living thing that moves upon the earth are subservient to man, and to be used by him. He has therefore a right to hunt and to fish, to slay and to eat, to use the horse to carry burdens and the dog to watch his flocks, the bee to hive his honey, the hens to lay eggs for him, the birds of the air to sing to him; and by the same right he may use them in vivisection if such use will minister to the health, the life, the welfare, of the human race.

There are two, and only two, questions involved in the

problem of vivisection. The first question is, Does it minister to the health, the life, the welfare, of the human race? To this there can be but one answer, the affirmative one. Then it ought to be practised under such conditions as will make its ministry to man the greatest, its pain to animals the least.

The second question is, What are these conditions? Vivisection before pupils in the grammar school, vivisection merely to gratify an idle or morbid curiosity, vivisection which has no health-giving end in view, vivisection which is regardless of and indifferent to the suffering of the animal is wrong, because it does not really minister to human well-being.

The vivisection of science, the vivisection which is really seeking to learn the secrets of life and death, vivisection pursued with serious purpose in order to alleviate human suffering and to prolong human life, vivisection carried on under conditions that reduce as far as possible the suffering of the animal operated upon, deserves commendation, not criticism; and its practice under these conditions belongs in the rank of the great modern philanthropic achievements. (*Outlook*, April 9, 1904, p. 812.)

This comment might easily be extended, so far as the good sought is concerned; for many results from animal experimentation have been secured that have tended to the marked benefit of the lower animals, and not to that of man.

We must take the universe as we find it. It is one in which life is constantly destroyed, doubtless for the benefit of other lives. As the highest type of the animal species, we at least need not be consciously cruel, but we should be blind to the teachings of Nature and invite race destruction if we did not seek to strengthen our species by endeavoring in every way to provide for it safeguards against the ravages of the lower types of life. (Editorial, *Boston Herald*, March 8, 1900.)

All other animals claim, without hesitation, the destruction of other species than their own for their own benefit. It is doubtful if any wild animal, at any time, ever dies a natural death—always one of violence or starvation.

Man does not at any time hesitate to claim his right over other animals to use them for pleasure, for decoration, for service, or for food. How, then, should he hesitate to use them—as in many heroic instances he has used himself—for the benefit of the human race?

That this latter has occurred in innumerable instances, the

history of every epidemic shows; and the moral heroism thus demonstrated is all the greater in that it does not receive recognition. One of my most-honored medical brothers—since passed on to his well-earned rest—once offered himself to me for a demonstration that, if attempted, he knew and I knew would result fatally. I have never passed through a more solemn or elevating scene than when this example of moral heroism was presented to me.

For the advance of knowledge and for the better relief of suffering, animal experimentation must go on. There is no alternative. Few of my hearers will take the position of one active opponent of the practice—that she would prefer to die rather than benefit by its results; and none, I hope, would repeat the blasphemous declaration that they would rather see a crucifixion than that it should go on.

The clear position of the loving parent is:—

Just in proportion as I love my own children, I am willing that certain guinea pigs should be experimented upon for their sakes. I am not willing that a single guinea pig should be tortured needlessly, but I want the man who takes the life of my child in hand to do no needless experimenting upon the child in order to save guinea pigs. (Rev. W. E. Barton, March 9, 1900, quoted by H. C. E., *Boston Medical and Surgical Journal*, June 14, 1900.)

Speaking upon this subject, one of the clearest writers of the day says:—

The insidious growth of selfishness is a disease against which men should be most on their guard; but it is a grave though a common error to suppose that the unselfish instincts may be gratified without restraint.

The fatal vice of ill-considered benevolence is that it looks only to proximate and immediate results without considering either alternatives or distant and indirect consequences. A large and highly respectable form of benevolence is that connected with the animal world, and in England it is carried in some respects to a point which is unknown on the Continent. But what a strange form of compassion is that which long made it impossible to establish a Pasteur institution in England, obliging patients threatened with one of the most horrible diseases that can afflict mankind to go—as they are always ready to do—to Paris, in order to undergo a treatment

which what is called the humane sentiment of Englishmen forbids them to receive at home! What a strange form of benevolence is that which, in a country where field sports are the habitual amusement of the higher ranks of society, denounces as criminal even the most carefully limited and supervised experiments on living animals, and would thus close the best hope of finding remedies for some of the worst forms of human suffering, the one sure method of testing the supposed remedies, which may be fatal or which may be of incalculable benefit to mankind! . . . It is melancholy to observe how often sensitive women, who object to field sports, and who denounce all experiments on living animals, will be found supporting with perfect callousness fashions that are leading to the wholesale destruction of some of the most beautiful species of birds, and are, in some cases, dependent upon acts of very aggravated cruelty. (W. E. H. Lecky, "The Map of Life," 1889, pp. 36 and 41.)

For some time the *New England Anti-vivisection Society Monthly* (now known as the *Animals' Defender*) published the following:—

What is vivisection, and what can I do to help the crusade against it? Answer: Vivisection is the mutilating, cutting, and burning of living animals: they are dissected, roasted, boiled, and skinned, when alive *and in full possession of their faculties* [Italics mine]. Nerves are dissected out, laid bare, and connected with the poles of a powerful battery from which currents of electricity are passed over these nerves: this probably causes the greatest agony of which sentient beings are capable. . . . The New England Anti-vivisection Society opposes vivisection (1) because the number of animals vivisected, with unknown and inconceivable agony to each one, is probably several thousand each day; (2) because anæsthetics are very seldom efficiently used; (3) because the results of vivisection are as near to absolute worthlessness as it is easy to get, in fact cause great and absolute harm; (4) because, as recent revelations in the *Transcript* (1889) and other papers abundantly show, vivisectioners of prominence and supposed character are, almost without exception, untruthful, and cannot be relied upon to tell the truth about their own acts [and so on].

These statements are so positive and, if true, would be so overwhelming that it is hardly conceivable that they would have been put forth with no better evidence to support them than has been offered from time to time in their support. Full

hearings have been given upon this subject by joint committees of the Massachusetts legislature, not only in one year, but for five successive years. Every opportunity has been given for the presentation of any specific evidence of cruelty or of the abuse of the practice of animal experimentation within this Commonwealth. The result has been uniformly the report of the committee giving "Leave to withdraw" to the supporters of the various bills that have been presented favoring further legislation in restricting or abolishing animal experimentation. If any portion of these statements of fiendish cruelty and useless experiment had been shown to be true, such a result before these successive committees would have been impossible.

None of the statements in the extract from the anti-vivisection magazine are specific of individual cases. Only when this happens is it possible to make specific replies. The well-known case of *Bayliss v. Coleridge* is one in point, and demonstrates how inaccurate supposedly accurate observation may be. The circumstances should be of interest to all those concerned in the advancement of medical knowledge:—

They may be summarized briefly as follows: Two young Swedish women, of good education and social position, had been visiting various laboratories and attending lectures in courses on physiology, apparently with the purpose of securing evidence to be used in propaganda against animal experimentation. During the winter of 1902-03 they visited London, and in February, 1903, at one of a course of lectures in physiology at University College, they claimed to have witnessed experiments that were conducted with great cruelty and in violation of the law. They were at this lecture—as they had been at others—not as genuine students of physiology, but as seekers after evidence in their crusade against animal experimentation of any kind. They were well educated, and might be supposed to be honest. It would be natural therefore to believe that they could see and understand what went on within a few feet of them, and would take pains to report truthfully what they saw. They testified that they saw no tube connection made for purposes of artificial respiration; that the animal experimented upon made many purposive movements, indicating a conscious struggling; that they smelled no anæsthetic, and believed that none was given; that cries, whines, and barks had been heard; and that the animal

had made a shrinking movement, as of fear, at the first approach of the operator. As against this professedly close and accurate observation it was proved in court, before the Lord Chief Justice of England: (1) that artificial respiration was carried on all the time the animal was on the table in front of them; (2) that the animal was profoundly anesthetized,—one and a half grains of morphia had been injected before it had been brought into the room (a very large dose), and that six ounces of the "A. C. E." mixture (alcohol, chloroform, and ether) had been used during the operation; (3) that this particular dog was affected with chorea, and that the movements seen were choreic—not purposive—in character; (4) that tracheotomy had been performed, and it was impossible therefore that any cries, whines, or barks, could have been heard; (5) that the shrinking movement of fear testified to could not have occurred for the above reasons.

The ladies, relying upon their own powers of observation, made a statement of what they claimed to have seen to Mr. Stephen Coleridge, honorary secretary of the Anti-vivisection Society (of England), a lawyer and a member of the English bar. This gentleman, as he testified, accepted their statement without any attempt at verification, although he knew that giving publicity to it would be likely to be followed by prosecution. Apparently, however, the search for evidence to support the agitation had grown so desperate that this opponent of animal experimentation was ready, even anxious, to use the testimony, and did so, amid great enthusiasm, at the annual meeting of the Anti-vivisection Society, early in May, 1903.

The prosecution for libel followed promptly, with the substantial verdict against the defendant of nearly ten thousand dollars (\$10,000).

That a lawyer, trained in the weighing of evidence and with a knowledge of the necessary responsibility accompanying specific assertions of cruelty, should have taken no step to verify his supposed facts, seems inexplicable. The defendant gave as his reason that he knew they would be denied, and during cross-examination went so far as to say that he still believed the women to have testified to the truth—this after their statements had all been denied under oath!

Here is the condition of mind we have found much nearer home. The opponents of animal experimentation deny its usefulness in the face of overwhelming evidence to the contrary—evidence that to them is not such; for they do not believe it when it is stated, and take no pains to verify it by actual observation. It may perhaps be fortunate, after all, that such attempts at verification are not made by such people, if their interpretation of the facts seen by them is to be as false as it was in this instance.

It has not yet happened that specific allegations of cruelty have been made in Massachusetts. Of general assertions there have been many, all of the same character, and repeated year after year. Perhaps such a disastrous failure as that of Mr. Coleridge, in the exploitation of an unsubstantiated calumny, may prove a salutary warning even to the most violent opponents of physiological research and teaching. That simple limitation is not what they desire, but absolute prohibition, is becoming more and more evident year after year.

If the unhampered advance of medical knowledge is to go on, ever-watchful care must be taken that methods like those illustrated in this trial are not successful. (H. C. Ernst, editorial, *Journal of the Massachusetts Association of Boards of Health*, xiv., No. 1, February, 1904.)

This case furnishes the best possible example of the difficulty of relying upon the observation of persons whose honesty of purpose may hardly be questioned, as one was not at first tempted to do, even in this instance. What, however, can be said, when, in spite of the testimony brought out in the trial of the suit for damages, showing that their observed and deduced facts were not facts, in spite of the advice of the defendant in this suit, whose reputation and pocket had suffered so severely by reason of his reliance upon their statements—what can be said of the honesty of purpose that led these women to publish this same case as truth, and without a single qualifying word of doubt? Such methods of interpretation are not a surprise to one like myself, whose duty has required the close examination and sifting of assertions brought forward in support of repeated attempts to secure unnecessary and burdensome legislation upon this subject in this Commonwealth.

I have, I believe, been more or less actively concerned in opposition to every attempt at legislation of this sort in this State. I do not remember that I have missed a single hearing upon the matter; and I have attempted to sift every piece of assertion that has been brought forward in favor of the proposed legislation to further restrict or to abolish animal experimentation.

I paid so much attention to the matter in the early days of my experience with it because I wanted to learn. I am myself a lover of animals, as all my neighbors know; and,

when my own work began to lie in the direction of animal experimentation in the hope of increasing the sum of human knowledge or doing some small thing towards the relief of human suffering, it became a matter of anxious consideration with me as to how much of this work I should do and how far such influence as I had should be allowed to support it.

So far as I have been able to do so, I have studied the matter from all its points of view, from its moral as well as its utilitarian side; and, so far as its justification is concerned, the evidence has appeared to me to be so overwhelmingly in its favor that I have been compelled to become its uncompromising supporter. It seems to me impossible that any one who has lived, as it is our privilege to live, in a generation that has seen the labors of a Pasteur, of a Koch, or of a Reed, who has had actual experience in seeing the sick snatched from the grave by the personal use of the results of similar labors, or who is able to realize the enormous saving of life to both man and the lower animals as the result of this method of study—it seems, I say, impossible that such a one can honestly oppose the continuation of the practice of animal experimentation in the freest possible way.

And by this I do not mean, nor do I know any one else to mean, unlimited freedom to any one to experiment at any time and in any way upon the lower animals. Such freedom does not and should not exist.

That it does not exist is not, I believe, generally known; for it is only because the present laws in the case are not known that much of the support is given to the annual agitation for further restriction of the practice. One example of this is furnished by a well-known and highly honored clergyman of this community, who signed the petition for one of the recent bills, and appeared at a hearing in its favor. At this hearing he spoke eloquently and somewhat at length in favor of placing some restrictions upon the practice, evidently under the impression that none then existed. Upon being informed of the actual condition of the laws and that the passage of the bill would seriously interfere with the beneficent work of many of his friends, his consternation was amusing, and pathetic as well. He himself proposed the remedy that the remonstrants to the bill should get up a counter-petition, and promised to sign that, too!

It is not true that restrictions to the practice of animal experimentation are lacking. The implications and assertions that none exist are not based upon facts, any more than is the description of what "vivisection" is, already quoted.

The editorial writer in the *Outlook* speaks of the needlessness of such demonstrations in the public schools, and in that I heartily agree with him. But there is now, and has been for years, a law upon the statute books absolutely prohibiting vivisection in the public schools; and no attempt whatever has been made, so far as I have heard, to modify or to evade its provisions. This part of the question is therefore absolutely closed.

The present laws governing cruelty to animals cover all remaining cases; and, to show how completely this is true, I may be permitted to quote them in part:—

Whoever overloads, overdrives, or overworks, or deprives of necessary sustenance, or cruelly beats or mutilates an animal, or procures this to be done to any animal, or, having charge of or being in custody of any animal, inflicts unnecessary cruelty upon it, etc., is punishable by imprisonment in a jail for a period not exceeding one year, or by a fine not exceeding two hundred and fifty dollars, or both. . . . A corporation which violates this provision is punishable by fine, and is responsible for the knowledge and acts of its agents or servants. Officers are authorized to arrest without a warrant persons who are suspected of being guilty of this act.

And, finally, there is a most stringent and unusual provision to the effect that, when a complaint is made to a court or magistrate, and when the complainant believes, and has reasonable cause for believing, that this law is being violated in any particular building, or place, and the magistrate or court is satisfied that there is reasonable cause, he may issue a search warrant to search the building. (Adapted. Public Statutes, Chap. 297, par. 52.)

First-rate legal opinion comments as follows:—

There is therefore in Massachusetts a law applicable to vivisection of the most extreme kind, which would enable any person who could satisfy a court that he has reasonable cause to suspect that cruelty was being practised in a Massachusetts

medical school, or elsewhere, to procure a search warrant to search the premises and discover the animal and the parties cruelly treating it, and to cause the arrest without a warrant of the persons who are suspected of practising the cruelty. So that this agitation is directed, as indeed has many times been acknowledged, against the professional schools; for vivisection is not practised in any other schools in this Commonwealth.

This being so, the question at once arises as to the trustworthy character of the trustees of our educational institutions, on the one hand—whether they are so negligent of the duties intrusted to them as to allow such fiendish cruelty to go on as is asserted to occur—and, on the other hand, whether the instructors appointed by them, after searching inquiry as to character as well as training, are so callous and unfeeling as the accusations state. In all the years that the hearings have occurred at the Massachusetts State House no evidence has been brought forward proving the existence of such a state of affairs. It may justly therefore be supposed that the public confidence in these officials is not misplaced.

Much of the argument against animal experimentation—of late years—has rested upon assertions and implications that the experiments are conducted without anesthetics efficiently used, and while the animal is conscious and suffering. Assertions of this nature, like the description of vivisection already quoted, are absolute, and, as I believe, intentional falsehoods. So far as my personal work is concerned or that of the laboratory under my charge, I may say that no experiment, except simple inoculations, has ever been made except under profound anesthesia. I have never seen one done, and I know them to be of the rarest occurrence—only considered at all when the object to be gained can be reached in no other way.

In other words, the demand that such operations be conducted with all possible precautions to avoid unnecessary suffering is already met in every institution of which I have personal knowledge or which has been brought to my notice.

I have said publicly many times that, if evidence is presented to me or my friends in this matter demonstrating the existence

of abuses that the present laws do not fully cover, we will support an active movement for reform. We must have evidence of worth, however. One can hardly be expected to ask for new legislation upon the testimony of an agitated lady near our Medical School, who was much troubled by the daily current of beautiful collie dogs taken in every morning—and never coming out again! These were my dogs, who used to run in with me every morning as I rode or drove through the Park, and who never seemed to go out again because, being the Fall, we all went home after dark. I believe it to be possible to assert with truth that the requirements of careful supervision and a minimum of suffering are fulfilled in every institution where the practice of animal experimentation is carried on. Certainly, if this is not so, it is strange that I have never heard of any proof of the existence of the abuse of the power of man over animals in this direction that has not been promptly rebuked. If such abuses do exist, there is plenty of law on the statute books to secure their punishment; and it would be my duty and pleasure to take part in the enforcement of these laws.

The Society for the Prevention of Cruelty to Animals finds no difficulty in securing convictions under the present laws in cases of abuse brought to its notice.

The complaint often made is that it is difficult to secure evidence of the abuse of the practice of animal experimentation, because those desiring to secure such evidence cannot get into the laboratories or demonstration rooms where experimentation is going on.

That the desire of any intelligent person for information on this subject or for admission to any laboratory where this practice goes on has ever been denied, I do not believe. It certainly has not been so in any place with which I am familiar. On the contrary, it is the fact that some of the most prominent agitators against animal experimentation have refused direct invitations to come and see for themselves; and one in particular is on record with the remarkable assertion, "I do not need to go into a laboratory to know what is going on there"!

The whole case may be summed up thus: If man's dominion over other animals is justifiable at all, then the use of those animals for the furtherance of his and their well-being is justifiable in the direction of experimentation, as in others. Such use must, however, be surrounded by all safeguards that it shall be merciful and as painless as possible. Such safeguards those competent to judge have said again and again are in existence, and no proof to the contrary has been brought forward.

2. SOME PHASES OF FOOD ADULTERATION AND INSPECTION.

BY ALBERT E. LEACH, ANALYST OF THE MASSACHUSETTS STATE BOARD OF HEALTH.

It is a significant fact that, in view of the importance of maintaining and enforcing laws to insure the purity of human food, so little interest is shown on the part of the public in such a vital subject. This is particularly apparent when we consider that Congress cannot succeed in passing a pure food bill after years of repeated effort, though it seemed almost certain that such a bill would become a law during the last session.

It is furthermore significant that, while for many years various State Experiment Stations have been devoting themselves to the study of cattle-feeding and to the examination of cattle foods, it is only within a few years that they are awakening to the fact that human food is at least as important.

In spite of the indifference just noted, an exaggerated impression seems to prevail regarding the character and extent of food adulteration. The popular belief is that nearly everything we eat and drink is subject to gross adulteration, the effect of which is very disastrous to the public health, being largely responsible for the wide-spread indigestion so common in this country.

A moment's reflection will show that actual adulteration is confined to a very small portion of our food supply, since the staple articles on which we most depend, and which we consume in largest quantities, such as cereals, fruits, vegetables, eggs, and fresh meat, are from their nature rarely subject to adulteration. It is the less important classes of prepared foods, canned goods, condiments, and spices, that we find most liable to sophistication; and of these we eat comparatively small amounts in the aggregate. Furthermore, by far the most common forms of adulteration consist in the admixture or substitution in these prepared foods of cheaper or inferior, though, as a rule, harmless ingredients, whereby

deception is practised as to the value of the food, rather than in the employment of poisonous substances. Indeed, the latter, while occasionally found, are extremely rare. We thus see that the question of food adulteration resolves itself largely into a form of commercial fraud,—a menace not so much to the stomach as to the pocket-book.

If, as a matter of fact, indigestion is more prevalent with us in America than elsewhere, and if the food we eat is responsible for this, is it not more probable that bad cooking, high living, or quick and irregular eating, may have more to do with it than the adulteration of our food?

But, it may be asked, what about antiseptics in food, alum in baking-powder, poisonous liquors, and all the rest of the dangerous things we dread so much?

While I may make the statement pretty positive that poisonous substances as such are rare in our food, there are certain substances which from their nature should at present be regarded as questionable, from the fact that it is not known whether or not any harm results from their use. I refer particularly now to the matter of antiseptics, the use of which in food is becoming prevalent.

From time immemorial mankind has depended on sugar, salt, spices, and vinegar for preservatives, all of which, by the way, have in themselves food value. When a few years ago the use of chemicals not inherent in food, such as salicylic, benzoic, boric, and sulphurous acids, formaldehyde, and other antiseptics, came into use, much concern was naturally manifested, and with some reason. At first the opposition was most bitter and determined, but in spite of this, the fact remains that they are used more and more extensively as time goes on.

The advocates of the use of chemical preservatives claim that there are no authentic instances on record of injury from the use of such minute quantities of these substances as are necessary to arrest decay, while there are well-known cases of injury arising from the use of foods which, while apparently wholesome, have undergone such fermentation as to develop ptomaines and other harmful toxins, and that, because these antiseptics do prevent the spoiling of food, their use is beneficial; that, furthermore, there is no more reason why a preju-

dice should exist against the employment of these newer chemicals, than against nitrate of potash or saltpetre, long used in the corning of meat, or against the cresols and phenols left as a product of smoking.

The opponents to their use assert that the addition to food of such antiseptic substances as prevent its decay also serves to retard the digestive processes when the food is eaten; that many of these substances are drugs, and as such cannot fail, even in small quantities, to exercise a toxic effect on the system; that, finally, their use is objectionable, as allowing the employment in certain foods of old materials that have in some cases already undergone incipient decomposition before the addition of the antiseptic, and are hence unwholesome.

If you ask the physician or toxicologist what is the effect of the use of these antiseptics on the human system when present in amounts actually found in food, if he is strictly honest, he will have to tell you that he does not know. He undoubtedly has a strong feeling *pro* or *con*; but he does not know, simply because it has not yet been demonstrated. Experiments on dogs, using excessive doses of these antiseptics, and even artificial digestion experiments, have proved of little practical value. Only by repeated experiments on a large scale on human beings can we get definite and satisfactory information. The Bureau of Chemistry of the United States Department of Agriculture, with its much-talked-of "poison squad," is at work along this line.

In the mean time the food commissions and boards of health in most States have hesitated to entirely prohibit the use of antiseptics; and the consensus of opinion seems to be that the best method at present is to compel the use of a label on containers of compounds, such as jellies, jams, ketchups, and the like, wherein antiseptics are used, stating plainly the name and percentage of such antiseptic. This, for instance, is a provision of our food law in Massachusetts.

While the average able-bodied person may not hesitate to eat food containing antiseptics, the question is very different with invalids or people of delicate health. Here, if anywhere, there is a good reason to fear the ill-effect of their use.

Another growing custom is the use in food of artificial coloring matters, the main object of which is to conceal inferiority.

I have here some examples of these colors. Here, again, while the question of possible injury to health from the use of these colors has been raised, we must regard it as subordinate to the main issue,—the ever-present commercial one of making a cheap mixture of ingredients masquerade as a high-priced article. The same regulations as to labelling apply in the case of colors as of antiseptics.

Now as regards alcoholic liquors. Time and time again we hear our most zealous temperance advocates protesting about the poisonous effects of *adulterated* liquors, not realizing that water and sugar are their chief adulterants, and that poisonous substances are almost never used. In fact, the adulteration of these beverages really promotes the cause of temperance, because nothing in liquor has such marked physiological, if not toxic, effects as alcohol itself, which, if diluted, certainly renders the liquor less potent. In making these statements, I do not condemn the offence of adulterating liquors, but am simply trying to show the effect of adulteration on the health of those who consume liquors as a beverage. On the contrary, when we consider the alcoholic liquors as medicinal preparations, we realize the importance of keeping them strictly to the required standards of the Pharmacopœia.

All rules have their exceptions. So here I must qualify the statement that our staple foods are least subject to adulteration. Though this is true in the main, there is one conspicuous exception; and that is milk, which of all foods is most readily tampered with.

Aside from the time-honored practice of watering and skimming milk, the use of antiseptics and of artificial colors is becoming more common, though these forms of sophistication are largely held in check in States and communities where strict food laws are enforced. In Massachusetts, for example, something like 1 per cent. of the total milk samples analyzed contain added preservatives, and less than 1 per cent. are artificially colored.

However liberally the use of antiseptics and colors in other foods may be viewed, there is practically but one opinion among food commissioners and health boards regarding their use in milk. Here the presence of any foreign substance whatever should be unqualifiedly condemned, principally because of the

wide-spread use of milk as a food for infants, invalids, convalescents, and those who are delicate and sickly. Again, even if an antiseptic in milk has in itself no serious effect on health, its presence allows the use of old milk, which cannot be considered wholesome.

I have a sample of perfectly sweet milk which has been kept in a bottle for over three years. It was preserved by the addition of 10 cc. of formalin. While this sample has shown no tendency to lactic fermentation, I am sure no one would care to drink it, even if the effect of the formaldehyde is entirely harmless.

Even though we are forced to admit that the element of commercial fraud in food adulteration as it is now practised is more in evidence than that of danger to health, it is none the less important that every effort should be made to insure the purity of our food supply.

It is not sufficient to establish food laboratories and to provide for the analysis of various foods. Further means must be adopted in order to hold in check this evil, for I suppose it will always be impossible to prevent it.

There are three practical methods for suppressing the sale of impure or adulterated food by the authorities having in charge the enforcement of the law in various States; namely, by publication, by notification, and by prosecution. Whether either or all of these methods are employed depends much on local conditions. Under the laws of some States the only means of protecting the people lies in publishing lists of adulterated foods with their brands and manufacturers' names and addresses in periodical bulletins or reports. Such publication, by keeping the trade informed of the black-listed brands, has a decidedly beneficial effect, and involves less trouble and expense than any other method. It is, however, obviously an advantage, in addition to this, to be able to use more stringent methods, when necessary.

The adulteration of food is most efficiently held in check in localities where, under the law, cases may be brought in court, and are occasionally so brought. The mere power to prosecute is in itself a safeguard, even if that power is not frequently exercised. Under a conservative enforcement of the law actual prosecution should be made as a last resort. Except

in extreme cases it is found far more effective to notify a violator of the law, especially if it is a first offence, giving warning that subsequent infraction will be followed by prosecution. Such a notification frequently serves to stop all further trouble at once, and with the minimum of expense. Instances are frequent in Massachusetts where, by simple notification, widely distributed brands of adulterated food have been immediately withdrawn from sale.

It is a matter of pardonable pride to us in Massachusetts that our State was the pioneer, over twenty years ago, to establish a regular system of food and drug inspection; and for many years, indeed, it was the only State to maintain such a system. Only within the last decade have other States come to see the importance of doing likewise, and it is a matter for congratulation that so many to-day are doing efficient work along this line. Now nearly every State has pure food laws, making the matter of adulteration an offence, but it is cause for regret that no more of them have efficient machinery for enforcing these laws. In this respect we must admit that our country is far behind Great Britain, where for many years every country and borough has had its public analyst.

I will briefly outline in a very general way the method of the Food and Drug Department of our State Board of Health in dealing with the problem. There are three inspectors who travel over the State and collect from different cities and towns samples of food and drugs, which they bring to the laboratory of the board at the State House for analysis.

Milk is collected from producers on the farm, from dealers' wagons, and from stores. About 10,000 samples of foods and drugs are annually collected and analyzed, three-fifths of which, or approximately 6,000, are, under the law, milk or milk products. Of the foods exclusive of milk and of the drugs much discrimination is exercised by the inspector in selecting samples, since long experience has shown the classes most liable to adulteration. These of course claim chief attention. Standard brands and foods known to be pure are of course not included, though attention must be given to possible new forms of adulteration which are constantly coming to the front.

Indeed, it is a well-known fact that modern food adulteration has become a science in itself, and that many large manu-

facturers employ skilled chemists, whose duty it is not only to deceive the public, but the State analyst as well.

Specific instances of food adulteration in Massachusetts are dealt with at the discretion of the board, which has full power to publish, to notify, or, as a last resort, to prosecute. Cases are brought in court with practically no expense for legal services. Complaints are entered by the inspector, who makes them not in his official capacity, but as a citizen, who, under the law, has been sold a food found to be adulterated, and who is entitled to conduct his own case, which he does with the aid of the analyst and of such other witnesses as he may require. Experience is readily acquired by the inspector in conducting such cases in the lower police or municipal courts, where they are first tried; and years ago the services of legal counsel in Massachusetts were with a few exceptions dispensed with as superfluous. While more often settled in the lower courts, occasional appeal cases are carried to the superior courts, where the services of the regular district attorney are of course availed of in prosecuting the case.

The classes of food which we most commonly find adulterated are in their order named about as follows: milk, vinegar, flavoring extracts, jellies, jams, canned goods, cocoa, honey, butter, lard, molasses, spices, coffee, and cream of tartar. Tea is rarely adulterated, owing to the rigid system of government inspection at ports of entry.

Of the above-named articles, no class gives more trouble to the enforcers of the law than the so-called compound foods, such as jellies, jams, and flavoring extracts.

Take, for instance, the average 10-cent jar of raspberry jam. Its typical composition is somewhat as follows: apple stock (often from the cores and parings of apple canneries), 30 per cent.; raspberry fruit and seeds (often the residue from higher-grade jelly pressings), 20 per cent.; cane sugar, 15 per cent.; and commercial glucose, 35 per cent. Such a mixture is most frequently colored with a coal-tar dye and preserved with benzoic or salicylic acid. You will note that the main fruit constituent is furnished by the apple rather than by the raspberry. If such a mixture is sold as pure raspberry jam, it is obviously a fraud.

Under the laws of several States, such a mixture cannot be

legally sold at all. Yet with the possible exception of the color and preservative, the mixture is a wholesome one, and, if sold at a fair price and on its merits, furnishes an appetizing condiment to people who could not afford the pure fruit preparation which it displaces. This jar retails at 10 cents. Its pure prototype, put up according to the housewife's formula, would cost at least two and one-half times that price.

Under the laws of Massachusetts such a mixture can be sold, if it has plainly marked on every package the name and per cent. of its ingredients. This law is intended to acquaint the purchaser with just what he is buying, so that, if he has scruples against any of the ingredients, he may avoid it. Unfortunately, these labels with formulas are not always truthful; and it is one of the analyst's problems to verify them. Brands of fruit jellies are on the market bearing in plain letters the title Raspberry, Currant, Grape, etc., and containing, as a matter of fact, no trace of these fruits. Perhaps in an obscure label are found the words "fruit juice, 40 per cent.," which however, does not convey to the consumer the fact that the fruit is exclusively apple.

Some of these formulas are honest, and others are misleading, either by erroneous statements or by their indistinctness. Some are like puzzles, in that they are difficult to find or read.

And now a final word regarding the real extent of adulteration and the effect thereon of State control. It is impossible for many reasons to give a close estimate of the actual percentage of adulteration. Since the foods examined by health boards and food commissioners are from the restricted field of suspected classes, statistics of these bodies do not show the actual percentage in the aggregate. On the accompanying chart I have graphically shown the variation in adulteration of milk, foods exclusive of milk, and spices during the twenty-one years of our work. The abscissæ show the calendar years from 1883 to 1903, inclusive, and the ordinates the percentage of adulteration.

The effect of a system of inspection on the quality of the food supply is at once apparent, as at the beginning of the period the ratio of adulteration in all classes of foods was very high.

The marked fluctuations from year to year in the milk and

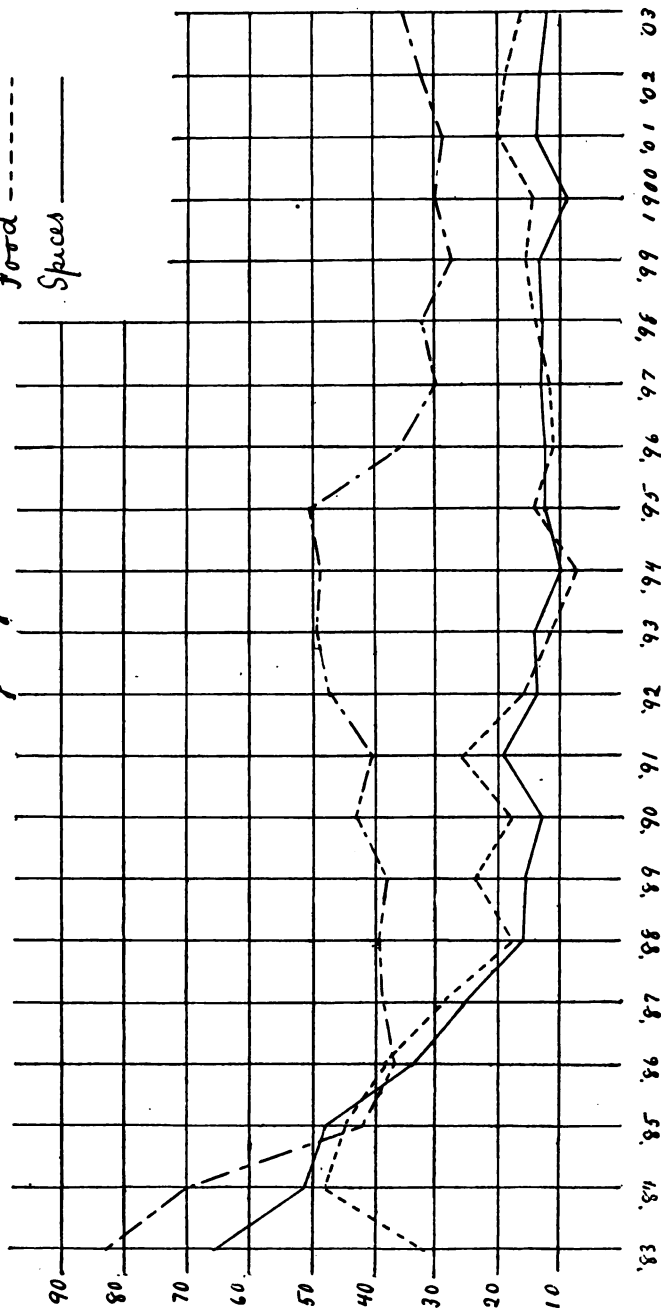
food lines are all readily accounted for, and are due mainly to difference in the character of the foods collected, and to changes in standards made by the legislature from time to time.

I have introduced the line showing variation in spices, because of all foods these are least subject to fluctuation from the above causes, and thus serve as an index to show by a comparatively smooth line the improvement due to our system of inspection.

It is, I think, safe to assume that less than 5 per cent. of the aggregate food products sold in Massachusetts are adulterated.

*Variation in Adulteration
of Food in Massachusetts
during 21 years*

Milk -----
Food -----
Spices -----



3. THE SIGNIFICANCE OF THE TUBERCULOSIS CRUSADE AND ITS FUTURE.

BY EDWARD O. OTIS, M.D., OF BOSTON, MASS.

Organized effort for the purpose of fighting pulmonary tuberculosis is now being made in nearly every civilized country of importance in the world. It is called the "crusade," the "warfare," the "struggle" against consumption. Governments and rulers, sanitarians and physicians, philanthropists and "the people" of all classes, are taking part in this movement. It is singularly impressive to observe this great and wide-spread wave of combined effort against a single foe; and it would be difficult to find a parallel to it, comparable either in extent or activity, in any similar movement of the past. A brief enumeration of some of the principal anti-tuberculosis associations and special forms of activity in different countries may aid us in more vividly realizing the extent and magnitude of this crusade.

In Great Britain there is the National Association for the Prevention of Consumption and Other Forms of Tuberculosis, under the patronage of the king and the presidency of the Prince of Wales. Branches of this association exist all over England, and it has its own publication. At its instance there was held in London in 1901 the International Congress of Tuberculosis, attended by delegates from various parts of the world. As one result of this congress, Sir Ernest Cassel placed at the disposal of the king \$1,000,000 for the establishment of the King's Sanatorium now in process of erection. There exist already some seventy sanatoria in the United Kingdom, with a total of 2,760 beds.

In Germany anti-tuberculosis societies, and associations for the erection of sanatoria, exist in most of the cities; and about ninety sanatoria for the poor and working people, with accommodations for many thousands of consumptives, have already been erected. There is a German Central Committee for establishing Sanatoria, under the patronage of the empress; and an International Bureau for the Prevention of Tuberculosis

has been organized in Berlin, with its special organ. In 1899 a Tuberculosis Congress of an international character was held in Berlin, under the patronage of the empress. The German Workmen's Insurance, which insures against invalidity, largely employs the sanatoria, either of its own construction or others, for its consumptives, on purely economic grounds, finding it more economical to cure or so improve such patients that they may resume their occupation rather than pay sick benefits for a longer period of time while they are slowly dying of the disease.

In France both the government and the people are working together in various directions. In 1899 the government appointed a large commission to determine the preventive means to be adopted throughout the republic. There are seventy-eight anti-tuberculosis societies in the different cities, united in a national federation under the patronage of the president. The anti-tuberculosis dispensary was first inaugurated in this country, Dr. Calmette founding the first one at Lille. Several congresses for the study of tuberculosis have been held in Paris, and an international one is to occur there in 1905. In December last the *Figaro*, a leading Parisian journal, dedicated an entire issue to the fight against consumption.

In Denmark there is a national association founded two and a half years ago at Copenhagen; and, through voluntary contributions from members of this society, three sanatoria have been erected.

National leagues likewise exist in Italy, Austria, Belgium, Spain, and Portugal. In Russia many such leagues have been formed in various portions of the vast empire,—at Moscow, St. Petersburg, Odessa, Sebastopol, Tiflis, etc.

In Norway the government enacted in 1901 a very comprehensive law regarding the prevention and control of tuberculosis.

In Sweden, on the occasion of the twenty-fifth anniversary of the king's reign, the sum of \$644,000 was raised by a national subscription, and presented to him. This amount, together with \$238,000 voted by the Reichstag, was applied to the erection and maintenance of three sanatoria in different parts of the kingdom. The educational propaganda by means of popular essays and the press has been very active in this country.

The official almanac, which enters every household, has for the past two years contained a brief account of tuberculosis and practical rules for the government of the consumptive and his household.

In Switzerland almost the entire population, one can say, is taking part in the struggle. In most of the important cities various organizations exist for the purpose of aiding the tuberculous poor and disseminating anti-tuberculosis literature. More than a dozen popular sanatoria have already been established in this little country, and twenty paying ones. There are also several sanatoria for tuberculous children.

In Holland there is a national association for the creation of sanatoria for the poor, with sub-committees in the principal cities. The queen-mother Emma has taken an active interest in this movement, and has made substantial contributions.

In Turkey, Hungary, Bulgaria, and Roumania both the government and various societies are at work, with the same general objects in view as in other countries.

In South America leagues exist in Brazil, Argentina, Chili, Uruguay, Paraguay, Bolivia, Ecuador, and Cuba. A general Latin-American Congress met at Santiago in 1901, and formed a permanent international commission to direct the crusade in these countries.

In Canada there is the Canadian Association for the Prevention of Consumption and Other Forms of Tuberculosis, whose honorary president is the Earl of Minto, the governor-general. Ontario and Montreal also have their leagues. In the provinces of Ontario and Quebec sanatoria have been established.

In Mexico, Central America, Australia, and New Zealand similar anti-tuberculosis agitation is in progress; and in Japan the imperial government has created a large hospital for the study and treatment of the disease.

In the United States there are various State and local associations. The first one of the kind was the Pennsylvania Society for the Prevention of Tuberculosis, founded in 1892. Quite recently Mr. Henry Phipps, of New York, donated \$1,000,000 for the establishment in Philadelphia of an institute for the "study, prevention, and treatment of tuberculosis."

This great "crusade" is of comparatively recent origin,

dating back hardly more than a decade: and its incentive is the result of a *discovery* and a *fact*.

The *discovery* is the finding or isolating of the tubercle bacillus and the proof that this micro-organism is invariably the cause of the disease, or, in other words, that pulmonary tuberculosis is *communicable* or infectious. The *fact* is the enormous *prevalence* of the disease, and, further, that its *greatest mortality* is at the best period of a man's life, between fifteen and forty-five years of age. Of all who die during this period fully one-third die of pulmonary tuberculosis.

Possessing this knowledge of the cause of the disease and the method of its communicability, it is at once apparent that it is *preventable*, if we can find a sure and ready way of controlling the cause; *i.e.*, the infecting germ. Happily, this is easy; for it is through the sputum alone of the consumptive that the contagion is conveyed. The breath, the perspiration, the other discharges from the body do not contain the specific germ, only the *sputum*; and this is dangerous only when it becomes dry, and releases into the air the infecting micro-organism. The conveyance of the disease by animals suffering from it is still under discussion, the weight of evidence so far being in its favor. If it is a fact, it counts for relatively little in comparison with the sputum cause of infection. Few, if any, phthisio-therapeutists would, I think, agree with Von Bering that everybody has latent or active tuberculosis, caused by the ingestion of milk during infancy.

The tubercle bacillus is a vegetable parasite, a seed, and, like other seeds, requires a favorable soil for its germination and growth. Furthermore, it resembles other seeds in the characteristic of exhausting or changing the character of the soil in producing the crop. Tuberculosis, by its growth, not only feeds upon the normal lung tissue and renders it incapable of performing its proper respiratory function, but so changes its structure that it becomes a ready prey to other destructive micro-organisms.

It is at once evident, then, that not all individuals exposed, even for a prolonged period, to the tubercle bacilli, contract the disease, provided their tissues are sufficiently resistant; and in this fact lies the whole theory of the present method of the treatment of the disease,—to convert a previously receptive organism into a resistant one.

It was the stony soil which afforded no deepness of earth to the sower's seed, and "because they had no root they withered away." So the tubercle bacillus will not grow in a healthy organism. But the seed falling into good ground produced an ample crop, thirty, sixty, an hundred fold. So it is the conjunction of the bacillus and the favorable soil whose fruition is pulmonary tuberculosis.

The favorable soil is the human organism depressed below its normal standard of health by many and various influences and conditions, either chronically or temporarily. Here comes in the influence of heredity as a factor in producing this favorable soil. Whereas consumption is not inherited,—for a contagious disease is caught, not transmitted,—yet experience indicates that a "*tendency*" to it, a special sensitiveness to the tubercle bacillus, appears to be inherited in a certain proportion of cases, not by any means in all.

The causes working to prepare this favorable soil are all those which we class under the head of unhygienic life and environment, or, in other words, they are the evil resultants of civilization. It is hardly necessary to enumerate them. Unsanitary dwellings and workshops, alcohol, unwholesome occupations, excessive labor, insufficient and improper food, and, more potent than all the rest, vitiated air. "He who has been the free child of nature," says Mr. Edward Carpenter* "denies his sonship; he disowns the very breasts that suckled him. He deliberately turns his back upon the light of the sun, and hides himself away in boxes with breathing-holes (which he calls houses), living ever more and more in darkness and asphyxia, and only coming forth, perhaps once a day, to blink at the bright god, or to run back again at the first breath of the free wind, for fear of catching cold."

Tuberculosis is an ubiquitous disease; and no region, whatever its climate and latitude may be, is exempt from it. The countries of the north and the tropics are alike swept by its ravages. Wherever human beings congregate, as in thickly settled portions of great cities, or wherever they shut themselves up in a vitiated atmosphere, like the Scandinavian farmers of Minnesota or the peasants of Brittany, there it is most prevalent.

The yearly holocaust is appalling; but we have become so

* Civilization : Its Cause and Cure. By Edward Carpenter.

inured to it that it no longer startles us, like some sudden catastrophe which destroys a few hundred lives. The annual sacrifice to it in France, for instance, is 150,000 lives, equal to the number of inhabitants of the city of Rouen. In this country it claims an equal number of victims, and so on in much the same proportion throughout the civilized world.

Is it any wonder that at last men are awakened to the realization of the destruction caused by this grim monster? Now that we know its cause through the transcendent discovery of Koch, and are able to control it, the enemy is no longer veiled in mist, but stands clearly revealed before us. It is only a matter of the selection of weapons, the mobilization of forces, and the persistence of the warfare to defeat the enemy, to exterminate this "great white plague."

It will be instructive now to consider some of the weapons and the different lines of attack employed in this warfare. There are five main lines along which the advance is being made,—the Educational, Social, Isolation, Governmental, and Medical.

Under Educational are comprehended the various methods of instructing the people in the simple facts regarding tuberculosis,—its prevalence, cause, communicability, prevention, curability, conditions producing the favorable soil, symptoms suggestive of its presence. This is accomplished by means of popular lectures, pamphlets, illustrations, placards, and the like. Existing organizations of all kinds are asked to furnish audiences, or they themselves ask for lectures and information upon the subject. The schools, labor unions, lodges, educational centres, clubs, churches, neighborhood settlements, employees in great department stores, are all available for audiences. Physicians, sanitarians, laymen who have had exceptional opportunities to become conversant with the subject, like Professor Fisher of Yale College, are available for lecturers. Leaflets, pamphlets, or more elaborate productions, are furnished gratuitously by boards of health, dispensaries, anti-tuberculosis associations, or philanthropic individuals or societies. Tuberculosis exhibitions for conveying knowledge upon the subject in a popular form have of late been instituted. Such an exhibition was recently held in Baltimore, lasting a week. Here were sections devoted to statistics; tenement

houses, sweat-shops, and factories; State and municipal prophylaxis; hospitals and sanatoria; pathological anatomy and bacteriology. Small groups from all classes of society—students, nurses, teachers, working-women's clubs, charitable societies and associations—were conducted through the exposition, and the various exhibits explained. Daily popular lectures were also given.

Similar exhibitions have been held in Moscow and St. Petersburg, and one is to take place in St. Louis during the Fair. In June of last year the International Tuberculosis Museum was opened in Berlin, "intended," as Dr. Kayserling says, "to be a popular object-lesson, and to represent one of the means for enlightening the people as to the nature of tuberculosis." There were divisions upon the history, prevalence, cause, prevention, and treatment of the disease, the whole subject being exhaustively portrayed in this way.

Another educational means is the use of the press, by popular articles in the daily and weekly papers and monthly magazines, such as the admirable article by Professor Fisher in the *Outlook* or those of Dr. Knopf in some of the New York daily papers. Reports of lectures upon tuberculosis, the transactions of anti-tuberculosis associations and other articles upon the subject in special publications, like *Charities*, the *Club Worker*, nurses' magazines, and the like,—all have an educational value.

Under Social are included all efforts towards the general betterment of the masses: the workingman; the tenement-house dweller; the factory operative; child-life. Indeed, the social condition of the individual has such a direct influence for or against one's receptivity to tuberculosis that it has been called a "social disease." The question of housing, overcrowding, intemperance, the feeding of infants and adults, wages and labor,—all have a more or less direct bearing upon the prevalence of tuberculosis. The decrease of the disease prior to the active warfare against it now in progress is undoubtedly largely due, as Hoffman says, to the improvement in the mode of life of the masses. By an amelioration of the conditions of their life they become more resistant to the disease; and, as the great Genoese investigator Maragliano has recently said,* "the victims of tuberculosis will diminish in

* *Medical News*, April 2, 1904.

number in proportion as the human organism is in condition to resist the disease."

As the modern surgeon now realizes that absolute cleanliness is really the cause of his marvellous results after operation, and that all his antiseptic precautions are only a means to this end, so in the ultimate analysis the social problem is the struggle towards cleanliness. Clean bodies, clean houses, clean workshops, clean air, clean water and food, and clean minds are the essential factors involved in the solution. Indeed, we even use the word as indicative of character; and the phrase, a "clean man," conveys a very fair estimate of the moral status of the individual.

Again, under Social may be included the various methods of relief and control of the poor tuberculous individual by frequent visitations at his home by visitors or nurses under the direction of anti-tuberculosis associations or dispensaries. Through this instrumentality the victim of the disease and his family are instructed as to the proper disposal of the sputum and the general care of the patient. Material aid in the form of food or other necessary articles is also furnished, when needed.

Anti-tuberculosis dispensaries previously referred to perform a very important social rôle as well as therapeutic. The consumptive who applies to such an institution is not only given medical care, but is kept under constant observation by the visitor or nurse. He is supplied with sputum receptacles, and generally guided in his plan of life, when possible. Opportunity for change of occupation, if considered desirable, or of residence, or entrance into a sanatorium or hospital, is provided for.

As it is the task of the engineers of an army to collect information regarding the enemy and to discover the topography of his country, so under the social side of the tuberculosis problem are the various statistical investigations regarding the disease and its social relations, such as has been so admirably made by Miss Lillian Brandt, the statistician of the Committee on the Prevention of Tuberculosis of the Charity Organization Society of New York. Such information enables one to prosecute the siege more intelligently, more effectively, and at more points of attack. "The struggle with tubercu-

losis," said M. Casimir Périer at the meeting of the Central International Tuberculosis Committee in Paris, last May, quoted by Miss Brandt, "is intimately bound up with the solution of the most complex economic problems; and no plans will be complete which have not for their basis the material and moral improvement of the people. The struggle with tuberculosis demands the mobilization of all social forces, public and private, official and voluntary."

Isolation.—Under this head are included all measures of prevention dependent upon the segregation of the tuberculous individual when he becomes dangerous to those about him through the dissemination of the infecting sputum. This is accomplished through the instrumentality of boards of health, sanatoria, consumptive hospitals, and various "Homes" or almshouses. In some countries, as Norway, for instance, and in many cities, compulsory notification of the disease is required by law, and the same authority can be exercised in dealing with it as with any of the other contagious diseases; that is, the government or board of health can remove a consumptive from his abode when, in their opinion, he is a menace to those about him. This usually happens in the later stages of the disease. Consumptive hospitals for advanced cases of consumption are sadly needed in our American cities; and it is one line of attack, and an exceedingly important one, to arouse public opinion, so that they will demand of the municipality the establishment of such institutions. It is no hardship to remove a poor consumptive to such a hospital, for he will receive far better care than is possible in his wretched abode.

Sanatoria also effect isolation, although their primary object is to cure. The workingman in the earlier stages of the disease, and still able to pursue his avocation, may be quite as dangerous to his fellow-workmen as the more advanced case. By his entrance into a sanatorium he obtains the benefits of treatment and has the chance of cure, while at the same time he is isolated. From obvious reasons, isolation at one's home is hardly practicable.

Governmental.—Whatever anti-tuberculosis regulations originate from or are executed by the authority of the government—central, State, or municipal—may be included under this

division. Such are compulsory notification already referred to; inspection and disinfection of infected abodes; free examination of sputum by State or city boards of health; ordinances against promiscuous spitting now in force in so many countries; sanatoria established and maintained by the government, as that of the United States Marine Hospital Service in New Mexico, and various similar State institutions, a most conspicuous example of which is the Massachusetts State Sanatorium at Rutland. When the government is paternal, other measures for the prevention and control of the disease emanate from the central authority; and many of the national associations for the prevention of tuberculosis receive the indorsement and enjoy the prestige of the ruler of the country in which they are situated. As in Germany and England,—indeed, in almost every country in Europe,—the rulers and government have shown themselves most intelligent and progressive in zealously supporting and aiding this great crusade, it is to be hoped that shortly a national association will arise in this country, with the approval and co-operation of our government.

Finally, under Medical or Curative are embraced all means instrumental in *curing* or *arresting* the disease, the chief of which is the modern sanatorium. As consumption is, for the most part, only curable in the early or incipient stage, only such cases are generally received into a sanatorium as appear susceptible of a cure or of such improvement as will enable them to again resume some occupation. The distinction between a sanatorium and a consumptive hospital is to be noted: the function of the former is to cure or improve, while that of the latter is to care for and isolate the hopeless cases.

The sanatorium treatment, also called the hygienic, dietetic, or open-air treatment, is based on the principle of increasing the resisting power of the consumptive to the tubercle bacillus. This, in brief, is accomplished by constant exposure to fresh air, abundant feeding, and mental and physical rest. Such treatment has been so pre-eminently successful that sanatoria are springing up all over the civilized world with amazing rapidity, as has been noted earlier in this paper. From present indications it will not be very long before every State in our own country will have one or more such establishments. It

has been determined from experience that it does not matter very much what the climate is where the sanatorium is situated, provided fresh, pure air is obtainable. Both private and governmental initiative or a combination of both is active in founding such beneficent curative institutions.

Incidentally, as has been referred to above, the sanatorium exercises a preventive influence of no small degree by isolating its patients. Another very valuable incidental influence of the sanatorium is the educational propaganda carried on by its graduates, or cured patients. As they return to their homes, they become apostles of fresh air and wholesome living to their less enlightened neighbors. This result of the sanatorium training has been strikingly exemplified in the State of Massachusetts.

In this connection I may again refer to the anti-tuberculosis dispensary as a curative instrument of no mean value. But comparatively few consumptives from the great mass of them can go to sanatoria,—for one reason or another they must remain at home; and these home consumptives the dispensary looks after. Through its visitors or trained nurses it keeps in constant touch with them, enables them to obtain proper food and fresh air by various expedients, such as sleeping on a piazza or an improvised platform, and by day in the open air in parks or roof gardens. Thus many economic cures at least are effected, and often while the patient, perforce, continues at his occupation.

In the foregoing I have briefly and imperfectly, it is true, considered the various lines of attack and the weapons at present in use in this great warfare; and it remains to forecast the probable results of the struggle. What of the future? Theoretically, consumption is a perfectly preventable disease; and I believe it will be proved to be practically so. If by the general improvement of the mode of life of the masses the mortality from tuberculosis has been so materially reduced in the past as it has in those countries where sanitary efficiency is high, it is reasonable to suppose that the continuation and increase of this general betterment of the masses, in conjunction with all these specific and special agencies now in operation, will cause the diminution of the disease to progress at a far greater rate from this time forward; and the evidence at hand corroborates this inference.

In Germany, if the decline in the mortality from tuberculosis continues at the same rate as at present, the disease will be exterminated in less than thirty years, and in England in about forty. The striking drop in the Prussian tuberculosis death-rate from 31 per 10,000 inhabitants in 1886 to 21 per 10,000 in 1900 is attributed to three causes: (a) the widespread knowledge as to the infectious character of tuberculosis; (b) the provision for a large number of sanatoria for the working classes; (c) the early and systematic resort to sanatoria which the workingmen's State Insurance Department in Germany encourages and assists. In Belgium the mortality, which in 1888 was 38.4 per 10,000 inhabitants, was reduced in eleven years to 24.5 per 10,000 in 1898,—a diminution of 36 per cent. In five Eastern States and ten other cities of the United States the mortality has been reduced from 27.2 per 10,000 in 1887 to 21.2 per 10,000 in 1900,—a diminution of 18 per cent. In Massachusetts from 1892 to 1902, a period of ten years, the diminution has been from 24.5 to 15.8, or a little over 35 per cent. In New York City the diminution from 1886 to 1901 has been more than 30 per cent.; and Dr. Biggs, of the Department of Health of that city, in quoting this diminution, says that it is his belief that with a complete and efficient scheme for dealing with tuberculosis, including suitable hospital accommodations and the proper enforcement of precautionary measures, the death-rate from tuberculous diseases in New York City may be further reduced one-third within a similar period, which would mean the saving of 3,000 lives annually.

It is to be borne in mind that the beginning of this rapid diminution is coincident with the diffusion of the knowledge of the present facts regarding tuberculosis, and when the special methods of fighting it were beginning to be operative. Koch discovered the bacillus in 1882, and in 1886 the results of the direct attack were beginning to be appreciable.

The process of civilization from a sanitary standpoint, at least, has been painful and costly; and it is still a debatable question in many minds whether the present manifestation of it is worth the cost. In its past, by its ignorance and filth, it has inflicted upon the human race many and frightful pestilences. By its increasing enlightenment in sanitary science

and preventive medicine it has shaken itself free from the majority of these enemies. Tuberculosis still remains to mock it with its ghastly smile. It is evident, however, from the present weighty movement in progress that there is a determination to fight it to the death. From the constant increase of anti-tuberculosis associations, the universal dissemination of the facts concerning the disease, the rapid increase of sanatoria, it is apparent that this great movement gains daily in momentum and power. The great awakening is at hand; and from every indication it seems destined to grow and grow until the final consummation is achieved, and the "captain of the men of death," this great white plague, is exterminated.

IV. DEPARTMENT OF EDUCATION AND ART.

I. EDUCATION OF ADULTS.

BY HENRY M. LEIPZIGER, PH.D., OF NEW YORK CITY.

To speak in Boston, the home of the Lowell Institute and of the Lyceum, on the lecture as a means of adult education seems almost as unnecessary as to bring coal to Newcastle. But the expansion of the idea of the lyceum lecture—its combination with the idea of University Extension, and its introduction into the system of education of cities—justifies the consideration of this subject in this place and before this body.

With the spread of democratic ideas throughout the world the belief in the necessity of the extension of popular education is becoming not alone deeper, but more general. Not only republican America, but monarchical Europe, recognizes the power of public opinion; and this deference to public opinion is the triumph of democracy. How important it is that public opinion should be sound and sane, and that the democracy that exercises this power should wield it in obedience to lofty and pure motives! Hardly more than a century ago education was considered the privilege of the few. How marvellous the development during the past thirty years!—the rise and spread of the kindergarten, the increase in the number of secondary schools, the increase in the institutions for the liberal education of women, the State college and university, the spread of the free library, the museum of art and science, all having as their purpose—what? The emancipation of the individual man and woman, in order that he and she may be free!

In our great cities the extension of the public schools has been evidenced by the addition of the evening schools, both elementary and high, the use of the school-houses during the summer for what is known as vacation schools, and the opening of school-houses during the evenings throughout the entire year

for the purposes of recreation and refined play. Thus the school is becoming not only a place of instruction, but a place of general culture. It becomes, as it should be, a social centre. The extension of the use of the school in the ways I have mentioned provides for those about the school age, and their popular reception is an indication of the wisdom of their adoption. The meaning of the word "school" has, however, been revised. The question arises, Shall the education furnished by the State end with the university, or shall the State furnish opportunities for the continuance of education to those whose school life has been limited or who acquire in life a yearning for higher things? In other words, must we not more and more admit that man needs knowledge not alone as a means of livelihood, but as a means of life?

A librarian once told me that a young reader came into her library, and said he wished a book entitled "How to Get Educated and How to Stay So." He unconsciously spoke a great truth. It is one thing to get educated: it is another to stay so. The school gives the beginning of education. Provision for adult education is necessary to enable us to "stay so."

The Free Lecture movement is a provision for adult education that now forms an integral part of the educational system of New York City, and has won its way from small beginnings until it is now regarded by the tax-payer both as a necessity and as one of the most judicious of civic investments. Its success has been so genuine, its growth so steady; and a similar system is possible in each city of the land, so that the lecture system of New York may seem to mark the culmination of public school extension. Its underlying principle is that education shall be unending, that the adult's mind can be developed as well as the child's. The city's prosperity and progress depend to a large extent on the intellectual calibre of its citizens; and, as we have come to realize that the child is of supreme importance, so have we also arrived slowly to the conclusion that he who from necessity has remained in many respects a child in education needs also, and actually craves, the additional knowledge and education that the "free lectures" attempt to give.

Of the school population of our land about 3 per cent. attend the high schools, and less than $1\frac{1}{2}$ per cent. the colleges,

universities, and professional schools. The great body of our citizens have but limited education; and the very persons best fitted to profit by education, and who need it most, are in most cases denied its beneficent influence. Two classes are especially in need of it. First, those between fourteen and twenty years, the time of adolescence, when conscience is disturbed, when character is being formed. At that time all the safeguards of true culture must be out around youth. Then there is that large class of mature people who have a knowledge of practical life who appreciate the value of education most keenly. It is from such a class that our students—I call them that rightly—of electricity, of physics, of history, are recruited. A lecturer on physics wrote to me the other day, "The questions put to me by hearers were, as a rule, more intelligent than are asked inside of many a college."

Fourteen years ago the Free Lecture movement in New York was tentatively begun in six school-houses. The total attendance was about 20,000. During the past season there were 143 places where systematic courses of lectures were given, and to the 4,665 lectures which were given by 450 lecturers there came an attendance of 1,134,000. This attendance is gratifying when one considers the unusual severity of the winter, besides other drawbacks to the gathering of large assemblies. The growth indicated by the figures which I have just quoted must lead to the conclusion that this democratic movement for adult education is appreciated by a constantly increasing body of our citizens. The large number who have attended this year prove that the appetite for instruction on the part of the people has not been appeased, but that, like all good things, appetite comes with eating. As a rule, we should not boast of mere bigness; but the fact that in the city of New York, including, as it does, all sorts and conditions of men and women, so large a number of persons, many of them old, wend their way, and in many instances climb toilsome flights of stairs, to the halls of instruction, is an admirable sign of the times. What is the magic power that draws to these halls,—some of them far from comfortable,—no matter what the weather, so many earnest listeners? The answer is that the good sense of our common people is truly appreciative of the best that the teacher can

give, and in these courses it has been the endeavor to give the people the best available from the staff of lecturers at our command. Some have doubted whether the people truly appreciate the best, but we have no such doubts. When Sir Richard Wallace's pictures were being exhibited at Bethnal Green, the poor part of London, after people had said that the workers had no soul for art and would not appreciate its treasures, a story is told of a woman, in very poor clothes, gazing intently at a picture of Madonna and Child, and then exclaiming, "Who would not try to be a good woman who had such a child as this!" We have not yet properly tested what the people are capable of appreciating.

I think it can be safely said that the movement for adult education, popularly known as the Free Lectures, is no longer an experiment. It is recognized in the charter as an integral part of the educational system of the city of New York. Its righteous claim to be considered such is shown by the constant endeavors to systematically organize the instruction. In the first years of the lecture course the lectures were not organized as consecutively as they are now. We know now definitely what our aim is. A passenger on the Elevated Railroad in Boston, somewhat the worse for drink, was carried around the entire system twice, not knowing where to disembark. Finally, the conductor said to him, "At what station do you want to get off?" The man roused himself sufficiently to say, "What stations have you got?" Some years ago we were in doubt as to what our stations were. Now we have found our definite station; and the definite purpose is to arrange these courses of lectures systematically, to stimulate study, to co-operate with the Public Library, to encourage discussion, to bring, in other words, the best methods of the best teachers to bear upon this great problem of the diffusion of culture among all the citizens of a great city. Has this been done during the past year? 160 courses of lectures, averaging six lectures in each course, have been given, and the majority of these courses by professors and teachers in our universities. Thus we have University Extension realized on a large scale. Eighteen courses of lectures on "First Aid to the Injured" were given, examinations held, and certificates awarded. To co-operate with the Department of

Health, in thirty-four places lectures on the prevention of consumption were given by reputable physicians, so that the themes that have instructed our audiences have been, first, facts concerning the body and its care. Then the great phenomena of natural science have been explained,—how steam has been harnessed, how electricity is put to man's service, how the stars move in their courses. The whole world has been travelled o'er. Starting from our own city, the great natural beauties of our land have been described. Every country on the globe, from Greenland's icy mountains to India's coral strand, has been described by travellers who have visited these lands and braved dangers for our instruction. The development of citizenship has been fostered by scholarly treatment of the great epochs in our national history and the study of the makers of our national life; and, to give a wider outlook, epochs in general history have been boldly outlined. For the history of the world is one great drama, and all its acts form part of one stupendous whole. Music, painting, and other forms of art have been presented to the people, and courses on the education and training of children, as well as municipal progress, have been listened to by eager auditors; for the purpose, as stated before, is to aid the joy and value of human life by diffusing among the mass of our citizens what some one has well called race knowledge.

The level of our citizenship depends upon the quantity of race knowledge which is made a concrete part of our social environment. It has been my privilege to receive year by year appreciative letters from both lecturers and auditors, the lecturer emphasizing the value of the experience in his own growth and power, the auditors telling of the inspiration and the stimulus derived from the lectures. Some one has said that two classes have most to do with forming public opinion,—editors and university teachers: it is they who instruct and stimulate the rest of the people. I would add to the editors and university teachers "and lecturers." For it is a fact, as Mr. Bryce has said, that since the death of Lincoln, America has been generally more influenced by her writers, thinkers, and preachers than by her statesmen.

I quote only one or two sentences from some of the letters. A parent writes: "Education, as I understand it, is not alone

for the youth, but equally necessary for their parents. The example of parents continuing their studies must be an incentive to the children." Another writes, "I have joined a library since hearing these lectures, and have read up the subjects well." An indignant citizen writes: "The talk of curtailing the free lectures has aroused quite a feeling. I do not believe that there is any other single feature in the scheme of education of this city more productive of good results than these lectures." Another writes, "I can truly say that Shakespeare has been a sealed book to me until I began reading his plays after having the characters fully explained by the lecturers." A lady writes: "To me the lectures are a stimulus to read above the daily newspapers and current fiction. At present I am reading the Iliad as the result of Professor Lawton's course on Homer." Hundreds of others I have received.

To some these lectures have proven the only bright spot in a cheerless existence, to others they have proven social features. Others have been greatly refined through their influence. After the lecture many have crowded around the lecturer for further information, and upon reaching their homes their conversation has not been the tittle-tattle of every-day life, but about Shakespeare or Lincoln or the arctic explorations or the wonders of electricity. An interest in higher things is thus gradually developed. Many a mind has been stirred from its lethargy; and the lecturers have appealed to all classes of our citizens,—the dweller in the tenement house or in the single house,—for their message is to rich and poor, man and woman, young and old, educated and uneducated. In this great scheme provision is made for all. They have stimulated an interest in education. They show the parents what a valuable thing education is, and the parents become attached to the school. They are social solvents. For the school is the safeguard of democracy; and at these lectures the laborer and the employer, the professional man and the mechanic, alike attend. So that the interest in higher things is not confined to the college graduate or to the male sex or to the well-to-do, but more has been done; for these lectures have been to many voices in the wilderness giving aid and comfort to many an aspiring soul and revealing to it its own strength, for many a poorly dressed young

man may have in him the germ of gifts which it would be well to add to the treasury of noble deeds. In that great storm of terror that prevailed in France in 1793 a certain man, who hourly expected to be led to death, uttered this memorable sentence: "At this dire moment," he said, "when mortality, enlightenment, love of country, all of them, only make death more certain,—yes, on the fatal tumbril itself,—with nothing free but my voice, I would still cry, 'Take care,' to a child that would come too near the wheel. Perhaps I may save his life. Perhaps he may one day save his country."

Summarizing again the aims of the movement as illustrated by our work, I would say that it is to afford to as many as possible the fruits of a liberal education, to make education a life purpose, and to apply the best methods of study to the problems of daily life, so as to create in our citizens a sound public opinion. Let it never be forgotten that the higher education reaches but a small proportion of the body of our citizens. A recent report of the Commissioner of Education says that only a little over 1 per cent. attend the colleges and universities of the land. And when it is remembered that a million and a half men, according to the last census, of voting age, were unable to read or write,—that is, 11 per cent. of the total number,—it will be seen how important the continuance of education is in a country whose government is determined by popular suffrage. And the greater portion of this illiteracy, let it be borne in mind, is among persons not of foreign parentage. The percentage of illiteracy among the foreign-born is large, but among the native-born of foreign parents it is smaller than among those of native parents. And this leads me to refer to the addition to our courses in the shape of lectures in foreign languages to recently arrived immigrants. Nothing is more illustrative of the hospitality of our city than is this provision for the acquaintanceship of future citizens at the earliest possible moment with the history of our institutions and the laws of civic well-being.

The lectures are illustrated largely by the stereopticon, and this teaching to the eye has proven a most effective means of popularizing knowledge and retaining interest. Mere speech is no longer sufficient: the actual things talked about must be shown on the screen. In scientific lectures abundant

experiments accompany the lecture, and the interest in scientific subjects can be illustrated by the fact that a course of eight lectures on "Heat as a Mode of Motion" in the Great Hall of Cooper Union attracted an average audience of 1,000 at each lecture. The lecture was followed by a quiz class which lasted about an hour, and serious reading of such a book as Tyndall's "Heat as a Mode of Motion" was done by many of the auditors. Special attention is paid to instruction in American History and Civics. On the birthdays of great Americans, in several portions of the city the lives of these eminent characters form the subject of the lecture; and during the past year, in order to help in the assimilation of the newly arrived foreigner, lectures have been given in Italian and in Yiddish on subjects that relate to sanitation and to the preparation for American citizenship, and it is pleasing to record that these lectures have been among the best attended of the series.

The lecturers are recruited from the very best educators available. Our lecturers include the professors in our universities, the traveller, the journalist, the physician, the clergyman,—in fact, any one who has knowledge to impart, the desire to impart it, and the power to do so; and the fine spirit that characterizes our teaching force is worthy of emulation by all who are engaged in the noble work of education. It seems to me that no more honorable and perhaps more difficult task can be placed in the hands of a teacher, who stands before audiences such as gather in our school-houses and halls; for I know of no more sacred task than that of a teacher in a democracy, organizing, as he does, public opinion, directing reading, and inspiring for the higher life. "The ideal teacher in a scheme of adult education," as some one says, "must combine with the university professor's knowledge the novelist's versatility, the actor's elocution, the poet's imagination, and the preacher's fervor."

Adult education as practised in New York combines the best elements of University Extension, and reaches the working-people of the city. It has been the means of realizing the belief that scholarship must go hand in hand with service, and that the duty of the university to the city and the State is to lift up our citizens to higher ideals.

The influence of the lectures on general reading is illustrated by the report from one free library, concerning which the librarian writes: "The register shows an increase of 321 members during the course of the winter lecture season, of which the larger portion constituted those who had first heard of the library in the lecture hall. As a result, the people select their books with more care and forethought, having something definite to ask for and on a subject in which their interest was aroused. A stimulus was created which led to more intelligent reading. You cannot expect all people to appreciate and thoroughly enjoy a book until they know something akin to that subject and until their enthusiasm has been aroused. This is what I feel the lectures are doing for those who have not had a school course." The platform library forms an integral part of the lecture movement. As the libraries do not possess sufficient duplicate copies of any particular book, there are loaned out to those who attend courses the leading books that are mentioned on the syllabus which is distributed with each course of lectures; and the circulation of these books bespeaks the intelligent pursuit of the subject in hand.

The movement for adult education not alone gives a new interpretation to education and the teacher, but a new type of school-house must come into being,—a school-house which is to be open not for a few hours daily, but at all times, and to be a place not alone for the instruction of children, but for the education of men and women, so that there should be in each modern school-house a proper auditorium, with seats for adults, and equipped with apparatus for scientific lectures and for proper means of illustration. The newer school-houses built in our city contain such auditoriums; and the extension of the school for these varied purposes makes the school-house what it really should be,—a social centre, the real, genuine, democratic neighborhood house. That we are approaching such an ideal may be inferred from the fact that some of the school-houses in the crowded districts are open on Sunday. If the museum and the library are open on Sunday afternoon, why should not the school-house, too, be open on Sunday afternoon, and in its main hall the people be gathered to listen to an uplifting address of a biographical, historical, or ethical

nature? Why should not the school-house represent all that is best in the social settlement, and why should not every man and woman engaged in the work of public education be fired with the same spirit which is said to animate the settlement worker? It seems to me the tendency should be to include in public education all that is best in the movements of philanthropy which mark our time. The interest of churches and philanthropic societies in our work is shown by the constant offering of church and other halls gratuitously for Board of Education lectures. The Church surely approves of spreading the gospel, "Let there be light."

The unification of a great city is furthered by a system of public lectures. It is not brought about by the mere building of bridges. In a great city, neighborliness often does not prevail, but community of ideas brings people together; and, when last year it was resolved to celebrate the 250th anniversary of the founding of New York as a municipality, it was celebrated not by a military parade or a monster banquet, but by a series of illustrated lectures and open-air exhibitions on the great development of New York City. About 100 such lectures were given, illustrating the history of the city of New York, 30 of them in public parks. As New York is the pioneer in this work of adult education, so is she the pioneer in this peaceful method of civic celebration.

The provision for adult education emphasizes the fact which now more than ever should be emphasized in our American life, that men are not old at forty. In reading the Life of Gladstone and of his rival, Disraeli, it appears that both of them did some of their best work after seventy years were passed, and that best work was due to the fact that during their whole life they continued their habit of study. And, now that we believe that the ardent desire for knowledge is most appreciated by the mature, we feel that this provision for adult education is among the wisest steps that the Board of Education of any city in the world has ever undertaken. In the recently issued report of the Mosely Commission it is said that these lectures form one of the best educational efforts of the public-spirited Board of Education of the city of New York.

Summing up the value of this movement, it may be said

that it has broadened the meaning of education, and forms a continuation school in the best sense. It reaches all classes of society, for the audiences are truly democratic. It brings culture in touch with the uncultured, it gives a new meaning to the uses and possibilities of the school-house, and not alone adds to the stock of information of the people, but furnishes them with ideas. In these days of shorter hours and larger opportunities the toilers will find in adult education the stimulus for the gratification of their intellectual desires, and a larger world is given them in which to live. The best characters in literature will influence them, their daily labor will be dignified, new joy will come into their lives from this association with science and literature and art; and they will find that true happiness does not come from wealth, but from sympathy with the best things in art and with the love of nature. We who are engaged in this work are imperialists; but our empire is the empire of the mind, for we believe that it is the mind makes the body rich. We are expansionists; but we desire not the addition of territorial possession, but the expansion of opportunity for all men to live the true life. We believe in the open door, but it is the open door to the school-house to which we refer. We would make it not alone a nursery for children, but a place of intelligent resort for men. And we are democrats in believing with our honored President that, though education has never saved a nation, no nation can be saved without it. To all the cities of our land the same opportunity for the adoption of this system of adult education is open as it is to New York.

2. EXTENSION OF EDUCATION TO ADULTS: HOW ADULT EDUCATION IS BEING FURTHERED BY THE WORK OF THE AMERICAN MUSEUM OF NATURAL HISTORY.*

BY DR. HERMON C. BUMPUS, DIRECTOR OF THE AMERICAN MUSEUM OF NATURAL HISTORY, NEW YORK CITY.

For the youth, education is compulsory: for the adult, it is elective; and the differences that prevail in our universities between compulsory and elective courses (the attitude of the student toward the teacher and of the teacher toward the student) are closely akin to the differences that must ever prevail between educational methods designed for the youth and those designed for the adult.

The adult must be attracted to an educational source: he seldom seeks it. This has been discovered by the various publishing houses, tourist agencies, and lecture bureaus. Having reached the source, he is discriminative: he will neither remain nor come again if he is not satisfied; but, unfortunately, his satisfaction does not always result from the pleasurable sensations that accompany *instruction*. Quite as frequently he may derive satisfaction from indulgence in those pleasurable sensations that accompany mere *entertainment*. Thus the number that may attend a lecture or visit a quasi-educational institution is not an index of educational work done. The most popular professor is not always the one giving the highest grade of instruction; and in museum work as in university work we should strive for quality rather than for quantity.

Apart from that general and indefinable educational influence that the mere presence of any institution exerts upon the people in its neighborhood, the American Museum of Natural History acknowledges (in its co-operation with the Board of Education of the city of New York through Dr. Henry M. Leipziger, with the State Department of Public Instruc-

* This paper was fully illustrated by lantern slides, mention of which is made along the margin of this text.

General
view of
American
Museum of
Natural
History.

An Exhibi-
tion Hall.

An
attractive
exhibition.

The Lecture
Hall.

tion, and through the activities of the members of its own scientific staff) that the lecture hall, as a part of its educational equipment, is a most potent factor,—a factor that strangely the directors of many museums have not discovered, but the presence and use of which transforms a place too often looked upon as an asylum for dead things, and for the idle wanderings of the mentally fatigued, to a place of living ideas and intellectual profit.

The
Mexican
Hall.

Through the co-operation just mentioned, on Tuesday and Saturday evenings during the fall, winter, and spring, on Saturday mornings, and on all public holidays, lectures on various subjects of natural science are here given to adults. To say that the hall is frequently filled gives the impression of quantity; but, should we mention the names of the lecturers, you would perceive that the people gather to listen to speakers that are something more than entertaining.

Visitors
leaving the
Lecture
Hall.

Biological science has well established the fact that, as certainly as animals tend to gather around a fixed type, just so certainly do certain individual animals depart from that type. While a large number of adult men may gather to the allurements of the lecture hall, there is nevertheless a large number that do not respond to this particular form of attraction. In short, some people do not enjoy listening to others: they prefer to observe for themselves; and it is largely for these, as well as for teachers and pupils, that the city of New York is glad to co-operate with the trustees of the Museum and to appropriate generously toward the maintenance of this institution. Were the American Museum a mere storage place for the ghastly products of the taxidermist's so-called art, for the rejecta of government exhibits, a plant for the retardation of the natural and often most beneficent processes of decay, or a final repository for those more enduring objects of stone and clay that short-sighted man has so often removed from their natural environment,—were the Museum really this, I should feel obliged to advise the trustees that it was not worth their support; and most certainly it would be a difficult task to argue, "How Adult Education might be furthered thereby."

Visitors
studying
specimens.

Happily, however, it has been the purpose of the Museum to divest itself of tradition, and to postpone the collecting

Eruption of
Mt. Pelée.

of specimens until it could first collect facts. Thus, at the report of volcanic disturbances in the Lesser Antilles, the geologist of the Museum, Dr. E. O. Hovey, was immediately despatched to Martinique with instructions to collect facts and with permission to announce these facts *for the education of adults* through any channel that he might elect. I think I am right when I state that his report as published in the New York *Herald* was the first thoroughly trustworthy scientific account of the disaster that reached the public. Is authoritative publication not as much the function of a museum as the exhibition of specimens? Later on, when Mont Pelée was reported as being again restless, our representative was again despatched; and the Museum is now distributing to the leading educational institutions of the world transparencies illustrating the ejection by the mountain of this stupendous obelisk of volcanic rock, a mountain in itself, ascending in a few weeks' time to an elevation more than a thousand feet above the crater, and then crumbling away in a mass of débris.

The "spine"
of Mt. Pelée.

Map of
Eastern
Asia,
Western
America.

For years historians and men of science have discussed the possible relations existing between the early inhabitants of America and various east Asiatic tribes. An occasional find of jade, the discovery of a peculiar boat, a supposed physical or linguistic resemblance between the natives of Alaska and Siberia, have been brought forward in evidence. President Jesup, perceiving that facts rather than theories were necessary for the solution of this problem, and knowing the interest that adults would take in the matter, sent an expedition—nay, sent a score of expeditions—along the east and west coasts of the north Pacific, first, to collect facts, and, second, to collect material.

The publication of the results of the Jesup North Pacific Expedition has preceded the installation of the specimens for the very reason that the display of these specimens without the facts would merely satisfy idle curiosity; and an institution given over to this can in no sense be considered educational. Moreover, it is the printed matter that accompanies the specimens (I do not mean "labels," but I do mean full and complete information) that gives a museum the right to use the adjective "educational." Here, for example, are

two kayaks, one from Siberia, the other from the Eskimo of America. They are of the same pattern, and indicate that Asiatic tribes must have come in contact with the American Eskimo. The harpoons of the two people are of the same type, and the basketry of the Indians of British Columbia and Alaska is strikingly like that of the tribes of Siberia.

Kayaks.

Harpoons.

Baskets.

If time permitted, I might describe the field-work of Chapman, now in the Bahamas, of Laufer in China, of Pepper among the Indians of the South-west, of Batty in Mexico, of Smith in British Columbia, of Stone in Alaska, and of Brown in Patagonia.

Birds being studied in the field.

Indians of South-west. Scene in British Columbia.

And now, if you please, an example of how descriptive matter may change that which merely astounds into that which becomes a potent educational agent. Were this cross-section of the big tree merely marked *Sequoia gigantea*, it would have some educational value, of about the same quality and quantity that would attach to the exhibition of a giant at an ordinary circus. This specimen, however, performs a deal of silent teaching. The visitor is told that the tree was cut down in 1892, that the yearly growth appears as a series of concentric rings, and that by counting the rings from the periphery to the centre we find that the tree was a seedling in the sixth century (550 A.D.). The respective centuries of growth are indicated by the small black cards, and important historical events, in proper sequence, are indicated by labels as seen along the upper row.

Photograph of Big Tree.

The lower labels, at the left, give the names and time of eminent men of science, the establishment of various scientific schools, the issue of important scientific announcements, and the publication of the results of scientific expeditions. This is not all. A guide leaflet hangs near by, giving on twenty-eight pages a description of all, and, incidentally, a brief history of biology. The fact that the pamphlet, like many others in the Museum, is not *abused*, but is literally worn out by *good* use, so that it must be replaced frequently, is a sufficient index that the efforts of the Museum to educate the adult are appreciated.

Guide leaflet.

The adult is more interested in matters of *current* interest, the child in *past* events. Thus an exhibit illustrating the depredations of the cotton boll weevil will attract and

Exhibit of cotton boll weevil.

instruct a hundred adults, while it is not noticed by the average child.

Relief map
of Japan,
Korea, and
Manchuria.

We have been censured for preparing a large relief map of Japan, Korea, and Manchuria, placing this in one of our Exhibition Halls, and indicating thereon from day to day the movements of the contending races. It is said that this is foreign to the function of a Museum of Natural History; but, pray, what public institution *should* provide accurate information respecting the passable and impassable barriers of ocean, mountain, and river that characterize this area? Is it true that science is to deal with man *not* in the historic, but only in the prehistoric?

Four-toed
horse.

Zebra.

Wild ass.

Reindeer of
Siberia.

Wild turkey.

Any particular event that draws people to the metropolis can be used as a means for wholesome instruction. The time of the Horse Show is the time to make a special exhibit of the series of prehistoric animals, leading up to the single-fingered, single-toed horse of to-day. It pays to remove zebras, quaggas, asses, etc., from their cases, to place them in a single hall by themselves, and to prepare descriptive matter for the particular class of transient visitors that will come to the city at this time. The newspapers willingly co-operate in all such work, and extend your plan of instruction. At Christmas time we have arranged special exhibits of reindeer, and at Thanksgiving time the varieties of the Mexican bird that at the Conquest was thought by the Europeans to come from India, and that later the New Englanders thought to come from Turkey. The periodic exhibition of new material, or of old material readapted, does much to correct the impression, by far too prevalent, that there is no profit in visiting a museum more than once.

Books in
Exhibition
Halls.

The popular magazines frequently contain articles, well written and often richly illustrated, upon various outdoor subjects. The editors of these magazines are distributing information about natural phenomena which is prepared in a most attractive form,—so attractive, indeed, that it pays to remove such articles bodily and have the binder put them into covers, when they are placed in the Exhibition Halls, near appropriate material. It was predicted that books unwatched would soon disappear, but really the loss is so small that it is negligible.

To reach and satisfy the attention of the adult, the Museum has discouraged the printing of guides; that is, the printing of mere invoices. It is felt that much more can be accomplished by the publication of readable treatises upon certain general themes than by the *tabulation* of objects displayed. Thus a publication on the local butterflies, illustrated by certain Museum specimens, becomes useful not to the visitor alone, but for all interested in the territory around New York. Indeed, I believe this publication would find general use here in New England. In the same way a so-called guide leaflet on "The Musical Instruments of the Incas" might be read as profitably at the home as at the Museum. We have orders from various parts of the country for copies of these publications. Ultimately a wide range of scientific subjects will be covered by these publications.

Photo of
guide
leaflets.

On the return to the Museum of the various field parties large collections of photographic negatives, often from remote localities, come into our possession; and it is here again that the Museum attempts to reach the adult. Prints, issued gratis by the Museum, of the country around Vladivostok, of groups of Koreans and Japanese life, and of various Russian tribes, have been used extensively by the illustrated papers of America and Europe. Should there be trouble between Brazil and Peru, we could supply, on very short notice, a series of authoritative illustrations of the territory in dispute; and the same would hold true for many other countries. Is this not the extension of education to the adult?

Photograph
of Album
Room.

View of
Andes.

From year to year there have been accumulated at the Museum many thousands of lantern slides covering a wide range of subjects, but lying idle, of course, the greater part of the time. Within a few months these have been reassembled, and the Museum offers to any organization that is designed to improve the condition of man (1) the use of one of its lecture halls, (2) the use of a stereopticon and operator, (3) the use of any slides that may be selected (at times we have made new ones gratis), (4) if required, the services of a lecturer. On this plan a person interested in some social organization may invite, for example, the employees of a cotton mill to visit the Museum, either on an afternoon or evening as may suit their convenience. They will find an intelligent

Photograph
of Slide
Room.

A cotton
field.

attendant awaiting their arrival, they will spend a little time in such parts of the building as may especially interest them, and, finally, they will sit down to an illustrated lecture on the cotton industries or such other subject as may be selected by their leader.

A messenger
leaving the
Museum
with
collections.

In any large museum there is an enormous accumulation of duplicate material too poor to display and apparently too good to throw away. The Museum has made an effort to find some work for these idle things to do, and we are not quite sure but that this work is now more important than that performed by regular exhibition material. These duplicates have led us to announce that the Museum is prepared to issue (through its own messengers) a number of small collections, for example:—

A circulating
collection
box.

A few of the Native Birds of Winter.
Common Minerals and Rocks.

A few typical Insects.
The Starfish and its Relatives.
The Every-day Life of the Aztecs.
Our Common Mollusks.

A circulating
collection.

The Native Squirrels.
The Birds of Spring.

The demand for these collections on the part of the public schools (over one hundred are now distributed in various parts of the city) has been such as to prevent, until now, the extension of the work to the many and various organizations and institutions designed to put adults in the way of improving themselves. But the methods that we have adopted for schools may be adapted easily to institutions, factories, and organizations.

The collections are no longer made up from duplicate material. The demand is such that we are obliged to purchase much that is wanted, and we strive to meet the needs of each particular case. We have frequently temporarily drawn on our regular exhibition material, feeling that a special *expressed* need of a smaller number is worth more than a generally *implied* need of the mass. Many of the collections now in circulation could not be improved, were they designed for adults. The group of spring birds, for example, with its descriptive labels, would doubtless be acceptable in almost

any place of gathering. May I read some of the descriptive matter that accompanies one of the collections?

Soon (at the time of the closing of the schools) we plan to change the character of the collections, adapting some of them more to the special needs of adults. Collections illustrating the process of coal formation, the process of combustion, the behavior of bacteria, and many similar exhibits, at once suggest themselves. The fact that the specimens are loaned, and for a period only, adds to their educational value. If I wished my neighbor to read a book, I should loan, not give it to him. Moreover, a collection *circulating* goes to far more than would come to it. Twelve different collections, if circulating, will reach twelve times twelve. The circulation, moreover, brings the Museum's agents (men trained for the work) immediately and frequently in touch with the people we wish to meet and of whom we wish to learn; and we feel that every specimen loaned is an invitation in itself to the one seeing it to visit the Museum.

I am not at all sure but that small instructive and frequently renewed exhibits placed in railway stations, hotel corridors, and other places of enforced leisure, would prove instrumental in conveying information to a class that at present is reached in no other way. I am sorry to have not had an opportunity of testing this phase of educational work before meeting you, but it may be thought worthy of attention at some subsequent session.

A fitting
exhibit.

3. ADULT EDUCATION.

BY MELVIL DEWEY, DIRECTOR NEW YORK STATE LIBRARY.

Twenty-eight years ago I spoke several times in this hall on topics closely allied to what our programme to-day calls "Adult Education." I recognize several faces to-day of those who remember how heretical some of those views were esteemed. Till recent years it was the fashion for the established colleges and universities to sneer at the efforts to popularize higher education. Most of them self-complacently assumed that one must be a charlatan or at least impracticable if he dared to try to give to those outside college walls a share of the knowledge and culture of which they were the recognized custodians. But the world moves. It was to me a great delight to hear this morning the greatest person who has ever guided the greatest of our American universities say so plainly how much Harvard is interested in these modern efforts in behalf of adult education. I came to-day to tell you very briefly something of our New York plans. To those interested it will be a pleasure to send our fuller printed information.

I am director of the first regularly organized State department devoted to the interests of adult or, as we prefer to call it, home education. Fifteen years ago, on taking office as the executive officer for higher and secondary education in New York, my first work was to repeal eighty-seven laws extending back over a century and to rewrite in a single law what we think a better conception of the State's relation to education. In it we recognize more fully than has been done by any other State or nation, and yet not as fully as should now be done, the fact that education is in two parts, each equally deserving the fostering care and liberal support of the State. School education has five distinct divisions: elementary, including kindergarten, primary and grammar school; secondary, including high schools and academies; college; professional and technical schools; university. The first three are for general education, regardless of the specific career of

the student. The professional and technical schools train for particular callings: "The university as the crown of the system we define as follows:—

"Universities" are endowed and chartered institutions with examining and degree-conferring powers, which give courses leading to higher degrees in the general or philosophic faculty and in not less than three special schools, and which have faculties, libraries, museums, laboratories, and other equipment and facilities adequate for specialized instruction of students prepared by previous college training, and for conserving, advancing, and disseminating knowledge of the liberal arts and sciences by research and publication.

America has spent countless millions on these five kinds of schools, and is each year wisely spending more liberally, because they have returned many-fold their cost, whether we consider it on the side of material prosperity or on the higher planes. But only a pitifully small per cent. of our children get beyond the elementary schools. Vastly smaller is the portion that reach any of the higher institutions. But we know that knowledge is power; that all civilization bases its success on the cumulative wisdom that is preserved and passed on in print; that it pays better than any other investment to disseminate the knowledge, the information, which increases material prosperity; and that it pays still better to give the inspiration which is less tangible, but more valuable, and builds the character which makes men and nations great. The schools are distinguished by the fact that their students find attendance on the school their major occupation in life. We are facing the problem of how to give information and inspiration to the larger class that are compelled to earn their living and of necessity must make education their minor, not their major concern, and get what they can in evenings and holidays. Eight words sum up my credo, "Higher education for adults, at home, through life." The civilized world has conceded that elementary education belongs to every child born into it. The new thought is that higher education as well is his birthright. The schools were chiefly for the young. The new education is for young and old alike. Its distinguishing feature is that it is given to those who are not in school, but at home, and that it lasts not for a limited course in youth, but all through life.

My chief thought to lay before you is the danger of seeing only one side of this large question. It is natural that each man who discusses it from the standpoint of a specialist shall think of his spoke as constituting the whole wheel, and assume that adult education is to be promoted by the one method with which he is specially connected. If a school man, he will think of summer, evening, and vacation schools, or will have the broader idea of teaching by correspondence. If a librarian, the reading of books is his panacea for all evils. If an artist, pictures, statuary, beautiful gardens, are the good things he urges on us as the great need for disseminating culture. If a scientist, the laboratory and museum, with all the lessons they have to teach, are put before us with glowing colors. The lecturer will tell us of the enthusiasm aroused, the stimulus for reading and thought, and is satisfied that adult education lies in a great system of popular lectures. In New York we have developed in the last ten years a wonderful work in study clubs. We have over six hundred scattered through the State, registered as doing ten or more consecutive weeks of systematic study on some worthy subject, and therefore counted by us as part of the State's educational machinery. There is a wonderful field for adult education which has been little worked in this direction. The advocates of all these measures are right; but we should fuse them together, and recognize home education as taking its equal place beside school education. It curiously is, like the other, in five distinct divisions: libraries, museums, study clubs, extension teaching, tests and credentials. Libraries include not only reference, lending, and newspaper departments, but also all reading of the conventional symbols which we call print. Museums include not only galleries of painting and statuary, or collections of scientific specimens or articles of historic interest, but all the help that comes from reading the natural language without the intervention of conventional symbols. A piece of statuary in a public park belongs as much in this museum group as if under a roof, and the park itself is perhaps a finer work of art than the picture in the gallery. Clubs include the whole field of mutual help where two or more with a common purpose come together, and by a subtle mental chemistry think and say things in company

which would never come to them alone. It covers not only the registered study club, as in our State system, but reading circles, debating societies, and all these agencies for mutual help. Extension teaching includes university extension courses, lectures, summer, vacation, and evening schools, private classes, correspondence teaching, and every agency where a leader helps on the student outside the regular schools. Remembering that the hundreds of thousands of sermons delivered weekly are in this group, it must be placed next in importance to the influence easily first, which is reading. The fifth and least important division of home education is the tests and credentials found necessary the world over for a majority of people, if they are to be kept up to systematic, continuous work,—a kind of intellectual yardstick that measures how much they have done, full of evils and dangers, and yet indispensable.

For fifteen years we have found this classification to cover the whole field exhaustively. The library is first, most important, and the natural centre round which the rest group themselves. It is here we must look for the development of this supremely important subject. I speak not as a librarian, but from the standpoint of education. No movement in human interest has met with such a wide-spread commendation, so little opposition, so liberal State and general appropriations, so favorable legislation, so munificent private gifts. The danger is in narrowing the work of the library to fit its etymology. In the minds of the ablest leaders it is no longer merely a question of books and reading, but the library is the home for museum, study club, extension teaching, and all phases of home education. Every self-respecting community has a school as the first essential of its community life. In this State, as nowhere else on the planet, the time has come when every community has a library as much as it has a post-office, a school, and a church. The idea is spreading with great rapidity. My message to-day to those interested in adult education is this. Recognize its fivefold character and its essential unity. Avoid duplicating agencies, as it divides strength and increases expenses. Support local public libraries more and more liberally, and help on the growth which is step by step following exactly in the track of the pub-

lic school development of this country. Broaden the conceptions of what the library means, and settle the rival claims for different methods of adult education by adopting all, with the library as the best and most economical administrative centre, and then using in each community or for each family the method that then, there, and to it will bring the best results.

APPENDIX.

THE TENDENCY OF MANUFACTURING AND OTHER ARTS TOWARD INDIVIDUALISM RATHER THAN COLLECTIVISM.

BY EDWARD ATKINSON, SC.D. OF BOSTON, MASS.

In dealing with a subject that will require the application of statistics, I will say at the beginning that I fully comprehend the danger of averages covering great numbers, and especially the danger of per capita computations; but I also fully comprehend the danger in dealing with aggregates and with the huge figures in which the national census is summarized. Both methods are necessary to any deductions from census figures; but both methods must, when possible, be qualified by personal knowledge of the leading facts in relation to the arts and industries which are to be treated.

One word upon the danger of aggregates. The national census of manufactures shows a vast increase in the alleged aggregate value between the dates 1880, 1890, and 1900, or any earlier date. Many political speeches have been made, illustrated by these figures. They are paraded by the advocates of high tariff in proof of great prosperity, which they attribute to the system of high protection. In point of fact, these comparisons are worthless; and yet the census of manufactures is of the greatest possible value to any real student of statistical science. The reason why the aggregate value of manufactures of the United States listed in 1900 at over thirteen billions of dollars (\$13,000,000,000) is worthless, either in itself or for comparison with previous periods, is due to the duplications and triplications of the same subject. Under the head of "Textiles," the value of Cloth appears; under the head of "Clothing," the Cloth is repeated. The

list is full of repetitions of the same subject in various forms, but at the gross value of each particular form.*

Another reason why the compilation is worthless even for comparison with any previous period, although both may appear to be in the same form, is that arts are brought in to the later compilations that were not computed in the earlier.

And, again, arts, like meat packing, now counting in hundreds of millions, hardly existed twenty (20) years ago, when butchering and its product were not included. It follows that every one of these tables must be used with careful judgment and full knowledge of the subjects.

Again, in the valuation of capital, Real Estate and Buildings are given in one column, Machinery and Tools in another, and the Quick or Active Capital in the third. For reasons given by the superintendent the estimate of Real Estate and Buildings is practically worthless. Many Arts are conducted in leased buildings of which no valuation was made. The estimate of Quick Capital, Stocks on Hand, and the like, and Cash used in the business vary season by season, and are

*One of the most conspicuous instances of this misuse of statistics has been presented in a recent speech of the Secretary of the Treasury, Mr. Shaw.

After carefully avoiding duplications of the products of the farm, he proves that these products, omitting grain fed to animals, amount to four thousand million dollars (\$4,000,000,000). But the animals fed on grain are as much a farm product as the grain, and, if the product of the great meat-packing and canning factories is added to his estimate, it raises it to at least five thousand million dollars (\$5,000,000,000).

But Mr. Shaw then cites the product of Manufactures at thirteen thousand million dollars (\$13,000,000,000), and holds that out as a brilliant picture.

If the products of the farm are removed from this category and all the other duplications regarded, the net product of Manufactures is not over forty (40) per cent. of the aggregate, or, in round figures, five thousand million dollars (\$5,000,000,000). But this total is at factory and workshop valuations.

If The farm value of our products of the field	\$5,000,000,000
The factory value of our manufactures	5,000,000,000
The value of metals at the mines, smelting works, and furnaces, now approximately	1,000,000,000
be added, we get a total of	\$11,000,000,000

But this total again is misleading. To this sum must be added the cost of Transportation and the cost of Distribution by Merchants. Adding these items, we reach the value of the annual products at the point of final consumption.

By several methods, each sustaining the other, I have reached an aggregate much larger than any other. I make it on a population of eighty millions (80,000,000) two hundred and twenty-five dollars' worth per head, or \$18,000,000,000,—a sum that few can comprehend; but, when we bring this down to the individual and the family, it tells another story.

One in each 2.60 is occupied in the work for which these figures stand.

On this analysis we find that the average product of all who take any part in this work is five hundred and eighty-five dollars (\$585).

By so much as some enjoy more must others enjoy less if that is the measure of all that is produced.

so much at variance in different arts as again to be useless for any comparison.

The valuation of Machinery and Tools may be accepted as nearer the mark, and sufficiently close to be of great use in deductive statistics. But in some cases machinery is hired by the manufacturer of which the value is not given. The table of the number of persons employed and of their wages has been more accurately computed, and may be applied to deductive purposes without any misgiving. The same is measurably true in respect to the valuation of the annual product at the factory and the workshop.

At the same time I have myself never made use of any similar census data as a basis of final judgment without applying my own knowledge of several different arts or conspicuous manufactures to a test of the census figures. For instance, knowing the cotton manufacture thoroughly and having taken the census of 1880 in this art, I can compare private compilations of the value of machinery, number of persons employed, average wages, and value of product to the general results in order to verify them, it being a rule that one may take the specific records of a large print-cloth mill and may be substantially assured that the figures of perhaps one-half the cotton manufactures may so closely correspond to the conditions of one or two mills as to make the comparison of the census of the large number with the single mill of sufficiently accurate test to justify both. The same is true of many other arts.

With this introduction as to method, I submit the subsequent analysis as one that may suffice to prove a tendency on absolute grounds, even if slight variations from particular conclusions should be allowed for. I am myself satisfied that the deductions which I have drawn from the analysis of the census of 1900 will be justified, and that they constitute a rule.

Let me here remark, by the way, that we were fortunate in the appointment of Director Merriam as the chief of the Census Bureau of 1900. He made a true selection of the heads of the division. Mr. S. N. D. North, who had charge of the Division of Manufactures, now the director of the Census Bureau at Washington, possesses most unusual quali-

fications for the service. Mr. L. G. Powers, who was and is the head of the Division of Agriculture, is a man of statistical genius, whose works on Western Agriculture are among the most valuable ever issued; and the same rule of good judgment in selecting men of experience and capacity was carried throughout the whole work.

Referring to tables in the Appendix for more exact data, it appears, according to the census of 1900, that, in a population of a little over seventy-six millions (76,000,000), twenty-nine millions (29,000,000) were engaged in gainful occupations; that is to say, working for payment in wages, earnings or profits in money, the proportion being one in each 2.60 of the population. The family group is a fraction under five (5) persons. If we take out from the number of those occupied for gain the customary ten (10) per cent. whose earnings are large enough to enable the head of a family of five to support that number, it proves that, great as the product of this country is relatively to other countries, it is yet so small that two persons in every working family of five must, on the average, be kept occupied for gain, earning money for the support of the family; and this is wholly aside from the arduous household work, which does not count in the census of occupations. The proportions of the persons occupied for gain are as follows:—

	IN 1880.	Per cent.
Agriculture	7,670,493	46.03
Professional service	597,334	3.46
Personal service	3,476,832	20.15
Trade and transportation	1,810,258	19.63
Manufacturing, mechanic arts, and mining	3,837,112	10.73
	<u>17,392,029</u>	<u>100.</u>
	IN 1890.	Per cent.
Agriculture	9,013,336	39.65
Professional service	944,333	4.15
Domestic and personal service	4,360,577	19.18
Trade and transportation	3,326,122	14.63
Manufacturing and mechanic arts.	5,091,293	22.39
	<u>22,735,661</u>	<u>100.</u>

	IN 1900.	Per cent.
In agriculture	10,438,219	35.65
In professional service	1,264,737	4.32
In domestic and personal service	5,691,746	19.44
In trade and transportation	4,778,233	16.31
In manufacturing, mechanic arts, and min- ing	<u>7,112,987</u>	<u>24.28</u>
	29,285,922	100.

The first great social fact which must impress every one who can derive impressions from figures is that, when the heads of families and the members of families were called upon by the enumerators not only to give the numbers in the household, but what each person did for a living, twenty-seven (27) per cent. could only reply that they were laborers; and, when we add those who could only reply domestic service and waiters, we find that one-third of all who were occupied for gain—earning money for the support of families in part or wholly—were in the grade of laborers or in domestic service.

The next great social fact which is developed by comparison of persons occupied for gain in 1880–1890–1900, respectively, is the great and rapid change which affects the social order of the whole community.

In dealing with the relative proportions in each of the arts, it must be remembered that it is probable—and, according to Superintendent Walker, almost certain—that a part of the persons who classed themselves as general laborers were in fact agricultural laborers during a part of the year. That would make but a slight change, and would affect each census in about the same proportions. It need not therefore be regarded. The relative proportion in Agriculture and Fisheries, disregarding fractions, was as follows :—

In 1870 nearly 50 per cent.
 In 1880 nearly 44 per cent.
 In 1890 nearly 40 per cent.
 In 1900 nearly 36½ per cent.

If this reduction varied greatly from decade to decade, the computation might be doubted; but, since it follows a regular course, it may be accepted as indicating a rule which is con-

firmed by observation of the facts. It may be remarked that between 1870 and 1880 the self-binding harvester came into use. Before that invention six or seven men were required to each harvester to tie the shocks of wheat. After its complete application, at least five of the number were no longer required.

In that decade the number of farm laborers in ratio to farmers, which in 1870 was about even, began to diminish. Subsequent inventions continued to reduce the ratio, and in 1900 there were only three listed as farm laborers to five listed as farmers, but to the number may be added men listed as general laborers, who go to the farms in the harvest season.

This change in occupation has been analyzed by Mr. W. T. Harris, Commissioner of Education, in the *Forum* for April, 1898, quoted by Molinari in the "Society of To-morrow" (G. P. Putnam's Sons). I have added the data of 1900 to his table:—

	1870	1880	1890	1900
Agriculture and fisheries	491.1	460.3	396.5	356.5
Liberal professions	29.3	34.6	41.5	43.2
Personal and domestic service	184.8	201.4	191.8	194.4
Manufactures	196.2	196.3	223.9	242.8
Trade and transportation	98.3	107.3	146.3	163.1

The main point to be observed in this table is sustained by observation, and by the other deductions given in the treatise. The diversion of farm laborers from agriculture tends to an orderly and continuous increase in manufactures, trade, and transportation, from which ensues an increase in professional service; while the proportion in personal and domestic service varies but little. Housekeepers witness the difficulty in finding persons willing to perform domestic service. Time and space do not permit a statement in detail of the relative increase in the number of teachers, journalists, photographers, piano-tuners, printers, and other occupations, which are very striking.

Do not these changes indicate a tendency from occupations calling mainly for the exertion of physical energy to others that require mental energy and manual dexterity? Do not these higher branches of industry tend to the development of individualism?

Yet in this decade from 1890 to 1900 we have only begun to witness the diffusion of light, heat, and power by electricity, the telephone, the trolley, the bicycle, the automobile, and the rapid extension of good roads. All these forces may, and probably will, exert a more potent social influence than the application of steam, water power, and illuminating gas worked in the last century.

Time and space will not permit an extended review of these new forces.

These changes in the proportion of occupations suggest in the first instance a profound revolution in the conduct of agriculture. A new race of farmers has been in process of development since 1880, bred in the schools which have been so fully established throughout the great Mississippi Valley, then brought under the influence of the agriculture experiment stations, which are doing the most useful and effective work now going on in this country while attracting perhaps the least attention. These men are cultivating lessening areas of land on the intensive method of rotation of crops and with the application of the modern mechanism of the farm and the improved tools which have been developed more rapidly in this period than ever before. The effect is witnessed in larger crops of every great staple at a lessening cost by the unit of product with higher wages to the lessened number of farm laborers. It will be remarked that the number of farm laborers is less than the number of farmers, and, even if we add the probable number of general laborers who work on farms a part of the year, the effective force of farmers and farm laborers might be more equally divided; but the farmer is himself a laborer in the highest sense, and the farm laborer is on his way to becoming a farmer.

It therefore follows that the change of population from the field to the town and the increase of the urban population is not wholly due to the social attraction of the town or city, but is due to the same influences by which the forces of the great factories are lessened relatively year by year,—a lessening number of higher-grade men and women compass the increased product at a lessened cost. The cities and towns therefore attract two classes from the field and the forest. First, a class of men and women who have (or who think they have)

a capacity beyond that which is offered in the field, and who therefore resort to the town or city; and another, second—perhaps larger—body of men and women, who, not finding themselves equal to the increasing demands of the field, resort to the town or city in the hope of finding occupation within their capacity or willingness to perform.*

The chief of the Census Department of Manufactures gives the reasons why no comparisons can be made in respect to the number of establishments by comparing the figures of 1900 with those of previous decades. He also states that in 1900 the data are only approximate. No exact definition was given of what constitutes an establishment. Returns were therefore made of the cobbler shops of one man and other hand workers of like kind; but in the compilations for making up the statistics of manufactures these hand trades were sepa-

*I am also fully satisfied that the common impression that the increasing wealth of the country is being more and more absorbed by multi-millionaires is erroneous. The wealth that is in the possession of the masters of these great fortunes forms but a very small part of the whole. In the pyramid it would be represented by a very small section of the apex. The tendency to the accumulation of very numerous moderate fortunes, which are in the aggregate vastly greater than those of the multi-millionaires, can be proved by analyzing the assessment of property for purposes of taxation in cities and towns. These reports give the ownership of real estate and of tangible personal property,—intangible personal property mostly escaping taxation. The State returns, however, of the ownership of stocks in corporations in Massachusetts give further proof of wide distribution.

From the consideration of these figures and from my own observation I feel assured that the great accumulation of wealth which has marked recent years is in the possession of a very numerous mutual class of persons who are not now counted rich, but who are in possession of moderate fortunes as compared to the multi-millionaire.

No approximate estimate can be made from these figures, but in my own judgment seventy (70) to eighty (80) per cent. of all the real estate, stocks, bonds, and other securities, and of the quick or active capital of the community is in the possession of this middle class, if so one may call them. The remainder is divided between the classes that own the deposits in the savings banks, yet more numerous than the middle classes, in the co-operative banks and the like, and the very limited class in point of number who are called the multi-millionaires, whose wealth is usually very much overestimated, as the settlement of their estates by their executors so often proves. In what exact ratios this distribution exists cannot be determined.

The common phrase, which I can only call slang, so ill-fitted is it to conditions, that "the rich are growing richer and the poor are growing poorer," has no basis in fact. As the rich grow richer, the well-to-do become more and more numerous: those who do the actual physical work find constantly improving conditions, and room is made at the base of the pyramid for great numbers to pass in to work that at least yields them a good subsistence for whom there had been no room before. It cannot fail to be remarked that decade by decade the nationality of the common laborers and of factory operatives changes.

The Americans, Germans, Irish, and Scandinavians have steadily gone up in the quality of their work and in their standard of life. The laborers who do the digging and the delving, who make the roads, cut the ditches, and make up the gangs on the railways, consist of Italians, Poles, Lithuanians, Bohemians, Slavs, Hungarians, Hebrews, and many other races; in the factories, mainly of French Canadians. In one large workshop of which I had information two or three years since, employing over three thousand (3,000) hands, a large proportion of the workmen were Armenians. In many other arts the Russian Hebrews have entered, and their children are among the brightest and most progressive in the common schools.

rated. The census of manufactures may, therefore, be taken as an approximate enumeration of all establishments from which a product worth five hundred dollars (\$500) a year or more was delivered.

The census returns of establishments cover 640,194.

The hand trades representing a product of less than five hundred dollars (\$500) a year number 127,419.

Leaving at over five hundred dollars (\$500) product 515,675.

In the tabulated list of manufactures, classified under three hundred and sixty-six (366) titles, we find 512,294,—a very slight variation.

We may therefore derive from these tables and from the figures on Occupations of the People a proof of a tendency on the one hand toward larger factories and workshops of the collective order, in which, by great subdivision of labor, operatives watch the machines without being called upon for anything more than a mere manual aptitude or practice. (See tables in the Appendix to "A True Method of Protection.")

On the other hand, the tendency is proved toward an increasing number and proportion of small workshops, each under individual control, in which the craftsman is generated and developed, combining the power of the brain, the eye, and the hand in directing and controlling tools as distinguished from machines.

Massachusetts contains the largest proportion of the collective factories as compared to any other State, but also a very large proportion in number and quality of the lesser arts for individual branches of industry. For many years the Census of the Manufactures of Massachusetts has been taken in the intermediate years between the national computations, and the work of both the National and the State Census of Manufactures has been conducted under the able chiefs of the State Bureau of Statistics. We may therefore draw our conclusions from the statistics of Massachusetts with more assurance of accuracy than from any other State, and by comparison with them we may verify in some measure the National Statistics.

With these qualifications and claiming only to prove a tendency toward individualism, I therefore submit this study of

our present conditions. I had the impression, which so widely prevails, that the tendency was the other way; but this study has sufficed to satisfy myself that the figures which I have given are symbols of a great fact.

Another proof of the approximate accuracy of my deductions may be found in the comparison of the numbers reported in the Census of Occupations, or of persons engaged in gainful occupations, and in the census of Manufactures.

Under the title of persons engaged in gainful occupations in 1900, we find under the head of Manufactures, Mechanic Arts, and Mining, also including Fisheries, 7,112,987. Among this number are carpenters, masons, and others occupied in the building trades, of whom a small portion are listed as being occupied under the title of manufactures. Deducting mechanics employed in factories from the whole number in the building trades, the remainder is 825,833.

Now since, in the nature of the building trades, they rest upon individual aptitude and skill in the use of tools, they may be classified among those tending to individualism. This tendency has been subjected to a temporary aberration by the trades-unions, which for a time retard progress in the building trades. Their number is not large in proportion to the whole, and, in respect to the smaller number who join them, establish a rather low general average of wages based upon mediocrity, as compared to what the same mechanics would earn if each one were left free, or left himself free, to attain the full measure of his capacity in establishing for himself his own rate of wages.

Mining is not now included in the Census of Manufactures, giving occupation to 570,995.

Fishing and oysters, not included, 73,810.

Taking from manufacturing establishments the number occupied in the hand trades previously referred to, 127,419, we find a total of 1,598,057 listed in the census of Occupations under the titles of Manufacturing, Mechanic Arts, and Mining. Deducting these from the whole number, there is left a total of 5,514,930 occupied in the branches of manufacture that are separately listed under that title. It therefore follows that at the date of the enumeration of the census there were to be found in manufacturing establishments of regular industry, that number, 5,514,930.

It will be observed that the Census of Manufactures is not fixed at that specific date. The blanks call for the return of the numbers who were actually employed in specific factories and workshops in the fiscal year preceding the date of the enumeration, and that number came to 5,122,540, showing a difference of only 300,000 persons between the earlier date of the factory census and the date of the enumeration. That again proves the approximate accuracy of both branches of the census, as there would have been a gain in that year between the date of the enumeration and the later dates in the returns of manufactures.

Under the permanent organization of the United States Census, coupled with the adoption of uniform definitions, blanks, and methods in the several States, it will very soon be proved in which direction we are moving,—toward individualism or collectivism,—and what type of society will be developed from the social and industrial forces now in action.

Having thus stated the thesis on which I have endeavored to work out my own conclusions, I now submit deductions from the tables which I have compiled. I will first call your attention to Massachusetts as a State and then to the figures of ten cities which I have selected as typical of three different branches of work, bearing in mind that the figures of Massachusetts are justified both in the National Census and in the frequent, almost annual, investigations conducted under our Bureau of Statistics.

(See previous table.) We find in Massachusetts 250 branches of manufacture listed separately out of 366 titles which are found in the whole country.

Number of establishments	29,180
Average valuation of machinery and tools per establishment	\$6,920
Average number of persons employed in each establishment	17.04
Average earnings per person	\$458
Average value of product per person	\$2,081

In Massachusetts there is a much larger proportion of the Textile Industry than in any other State. Dealing with this art separately, we find:—

Establishments	438
Machinery and tools per establishment	\$174,675

Average number of persons employed in each	322.83
Average earnings per person	\$359
Average value of product per person	\$1,422

This is the principal collective industry of the State.

The next collective industry yielding the largest annual product in ratio to value of machinery and number of persons is the manufacture of boots and shoes.

It may be observed that this branch represents individual rather than corporation ownership, and that the work is far more that of the craftsmen than of the factory operative, yet it is a collective industry representing a very great division of labor.

Establishments		640
Machinery and tools per establishment	\$9,000	
Add for machinery hired not valued in census on them*	<u>3,000</u>	\$12,000
Average number of persons employed		91.62
Average earnings per person		\$473
Average value of product per person		\$2,000

The ratio of male and female workers does not vary greatly from the Textiles. There are a few more large establishments, but, by deducting the Textile and Boot and Shoe Factories from all others, we get the approximate conditions of the Collective and the Individual Branches.

TEXTILES, BOOTS AND SHOES.

Collective.

Number of establishments	1,078
Machinery and tools per establishment	\$76,400
Average number of persons employed per establishment	186
Average earnings per person	\$393
Average product per person	\$1,528

* From the data which I have secured on the actual figures of effective boot and shoe factories under the most vigorous individual management, the product of machinery only, fairly estimated at \$350,000, is approximately \$7,000,000 per year, or twenty-fold. If the value of the buildings (land being of little account) be added, the total investment is \$600,000. Of course, a very large working capital, varying at different periods of the year, is required. The number of hands employed, men and women, in round figures, 4,000. Weekly pay-roll averaging \$40,000.

These factories are well situated where the cost of living is lower than in crowded cities, and where the dwelling-places are widely scattered under the best sanitary conditions.

Individual.

Number of establishments	28,102
Machinery and tools per establishment	\$4,200
Average number of persons employed per establishment	10.37
Average earnings per person	\$503
Average product per person	\$2,500

Boston is the great centre of the manufacturing industry of the State, yet there is no very large factory in the city and the building laws forbid their erection.

Worcester comes next, a city of small industries in great variety. Lowell comes next, formerly limited almost wholly to great Textile Factories, but now rapidly developing the lesser arts.

I submit a table in which the details of the manufactures of Massachusetts, of the Textiles separated, and of ten cities, will be found. (See Appendix to "True Method of Protection.") How fully these figures sustain my conclusion I leave to the student to decide. I suggest personal observation and a study of the social conditions of the several cities in connection with this analysis, with observations upon the nationality, the type and the quality of the working men and working women, and the general condition of each city.

I also append a full table giving in similar detail the manufactures of the United States as a whole and of thirteen (13) States separately. The figures may be very surprising to most people. It will be observed that the largest average number of persons employed in each establishment is found in Massachusetts, where the collective industry proportionately exceeds that of all other States; namely, 17.04 persons per establishment.

The next largest number is found where, by observation, we might expect to find them,—in New Jersey,—15.60.

The next in Pennsylvania,—14.6,—a surprisingly low average when we remember that in Pennsylvania are some of the works that employ the very largest numbers that are to be found in single works in the whole country.

Again, we turn to New York, where the city of New York is the greatest manufacturing centre of the United States, and in which State there are many establishments and very

large numbers of workmen, yet the average is only 10.79; and so on throughout the list. The average of the whole country in more than five hundred thousand (500,000) establishments only 10.36 persons to each.

Again, in dealing with these tables, and especially with those of Massachusetts, it will be observed that the Collective Industries employ the largest value of machinery and the least number of persons per thousand dollars of capital in machinery at low rates of wages, yielding an annual product which, although greater than the amount of capital invested in the machinery only, is well known to be less than the capital of most of the factories. That is to say, in the Textile Industry and in other industries of a somewhat similar character the capital is only turned over once a year or less, but in the industries like the manufacture of boots and shoes, where the amount invested in machinery or in other forms of capital is very small, the mental aptitude and capacity of the workmen very large, the annual product exceeds the capital many times.

A suggestion might well be made to review some of the modern Trusts, or Combinations, in order to determine what the amount of the "paperization" (commonly called capitalization) bears to the value of the annual product. In the Textile Industry, paperization may never be found. On the contrary, the works have as a rule been built with economy and for money paid. In some more recent instances, Textile factories have been promoted at rather high prices for payment in stock. As a whole, the capital now outstanding in the form of stock may be regarded as much less than the original cost, the capital stock having been cut down in many instances to meet the lessening cost of construction.

On the other hand, if one gives regard to what is called the capitalization, but should be called the paperization of the Steel Trust, it will appear that the product at its highest point was less in value than one-half the nominal capital represented by stocks and bonds; and that has been the case with respect to a very large number of the modern Trusts, or Combinations.

Under the conditions named in respect to steel it is manifest that there must be a margin of profit of at least twenty (20) per cent. on the product in order to yield the necessary sum

for depreciation and for the interest on outstanding bonds and dividends on the stock. It therefore follows that very powerful individual enterprises have been or are being organized on a true cash basis, of which the annual product will be much more than the capital invested, and from which a small margin or profit will pay dividends on the true capital, when the inflated paper capitals will get nothing.

In the end the Individual enterprises must be more effectively managed than the high combinations, and will, within a reasonable period, bring them to a cash basis or displace them wholly, except so far as they may own a considerable part of the crude ore and coal, of which there can be no monopoly in this country.

Again, referring to the small workshops, the individual industries, we find throughout a very small capital in proportion to the amount of work done, the highest rates of wages, and the largest product as compared to any of the Collective branches of work.

This again indicates that, although no man is paid or entitled to be paid for his work by its measure in quantity, in kind, in number of hours or strenuousness of the effort, yet every man makes his own rate of wages. He is paid for his services according to the measure of what he saves to the man who pays him, either to the employer or to the man who buys his product.

In former days each little community and almost every household made its own cloth and clothing, often cobbled up its own footwear, made its own furniture, and so on. Many could do the same work at the present time with a little preparation, especially the boys and girls who have been taught manual training. Why does not every man or woman do this work to-day? Why do they buy boots, shoes, clothing? They have no special interest in the people who do this work; they have no knowledge of what rates of wages they earn; they never see them; they may be a thousand miles off. They buy the goods because they save their own time and can make a more profitable disposal of it than if they spent it on the work which the factory operatives do for them.

There is a conscious or unconscious cerebration in every bargain and sale; and the rate of earnings, wages, and all other

forms of compensation, is fixed by the measure of the service which the buyer puts upon it, and not by the measure of the work which the workman, or the singer, or the artist, performs.

It has been held that the Collective, or factory, system and the division of labor shows the greatest progress in the application of science and invention. That is true in one aspect of the case; but, on the other hand, the improvements that have been made both in hand and machine tools are even of more importance and even more effective than those which have been made in automatic machinery. It can almost be said that, the better the tool, the better must be the man behind it,—the more skill is needed: the more the tool requires the combination of hand, eye, and brain, the greater the development of the man or the woman; and with this development come increasing wants and increasing power to satisfy the wants.

On the other hand, the Collective Branches of Industry give opportunity to common laborers to pass from the state of mere "clodhoppers" into a position which a few years since required a skilled mechanic, the automatic mechanism requiring attention and watchfulness without any considerable manual training.

The Collective Factory system has also given opportunity for women to enter into many arts. Fifty (50) years since it was a step upward from the isolation of the New England farm and its arduous duties to the Lowell cotton factory. The daughters of the farmers worked by bell time fourteen (14) hours a day, or, less the lunch time, thirteen (13) hours of actual work, in a low-studded, badly heated, and badly lighted building where they earned from 1840 to 1850 an average of one hundred and seventy-five dollars (\$175) each per year, with an average product per hand of less than ten thousand (10,000) yards of heavy sheeting.

From that date there was a gradual reduction in the hours and labor, coupled with improvement and increased product in the machinery, an advance in the rate of wages, and a lessening in the cost of labor by the unit of product.

It has been held that since that date the operatives in the cotton factories have degenerated. Such is not the case. The class of working people who are now fully competent to tend

the automatic machinery would have been wholly incapable of operating the less automatic mechanism of the earlier date. The farmers' daughters of New England have passed up into far better employments, making much higher earnings, and their places have been filled mainly by people of foreign origin. In one large mill of which I have information two thousand (2,000) operatives are divided among sixteen (16) different nationalities, the larger portion being French Canadians. What purports to be the very same mill as that of 1850 has one front wall only of the former construction: it is now a large, well-lighted, well-heated, and well-ventilated building; the hours of work are ten per day, with half a day off on Saturday, fifty-six (56) hours per week; the average earnings double the former rates; the product per hand would be forty thousand (40,000) yarns if the same fabric were made, and the cost of labor by the yard greatly diminished.

It follows that, although there is less individualism in the Collective work of the factory, yet by the force of science and invention new strata in the social order (if one may use that word) are brought into view. The Industrial system would correspond to a pyramid lifted at its apex higher and higher; each class passing up to a higher plane, decade by decade, and leaving a space below for a broader base, consisting of those who would have found no place in the arts, either Collective or Individual, in the previous generation.

The time is not far off when, even in the Textile factories, one will witness similar conditions to those which now exist in steel works,—hardly a workman to be seen. The operatives in the Textile factory will number less and less as the mill becomes more automatic, until at last it will become one great combination of mechanism in which a few experts will keep the machines in order, but few operatives will be found even in the weaving-room, and they will be of the highest grade.

Thus, even in the Collective system, Individualism, personal capacity and aptitude, will become more and more the rule; and, even though the Collective factories increase in number and product, the proportion of mere operatives in the working population will steadily diminish.

It must now be observed that the function of the great factories, the iron and steel works, and others of like kind, all

of the Collective type, is only to convert the crudest product of the field and the mine into a secondary form more or less advanced; but the products of the Collective factories and works become the partly manufactured material which pass on to the next stage where they are converted into their finer and higher forms by craftsmen and skilled women who must combine the hand, the eye, and the brain in order to do their work. "What," some one will say, "are not textile fabrics the crude material of the 'sweat' shops?" True; but the poor sewing women of the "sweat" shops are there because they are either poor in their skill and aptitude or in their capacity to take the places in the clothing factory, where there is always a demand at high wages for those who possess the necessary individualism, skill, and aptitude.

Observe again that with each stage in the development of modern tools as distinguished from machinery there comes in a call upon individualism, a demand upon all the faculties; and, with this increased demand upon the intelligence, corresponding earnings follow, new wants are created, and better conditions of life are attained.

I trust that I may not be in error, that I am finding only what I hoped for rather than what is really symbolized by the figures that I have treated. Nevertheless, "faith is the substance of things hoped for, the evidence of things unseen," and one who deals with the figures of our national accounts as mere symbols of conditions cannot fail to become an optimist. They witness the evidence that mental energy is the prime factor in all material production. The quantity of physical energy with which the world is endowed may be fixed: the conservation of physical energy is a law. In the conversion of energy from one form into another our life is developed: the body of man is but one phase of this conversion of physical energy from one stage to another. But there is no limit to the power of mind over matter; there is no limit to the development of mental energy; there is no limit to progress in directing the conversion of physical energy from one form into another: and, since mental energy is and always will be the prime factor in all material production, one may upon that basis predicate a rule,—The power of consumption is limited, the power of production is unlimited. Whether or

not there shall be temporary or local congestion and want for lack of the means of living or widely diffused abundance will rest wholly on the development of human intelligence, on the suppression of the brutal instinct of war and warfare, and on the repeal of all statutes that conceal a subtle perversion of the power of public taxation to purposes of profit.

Again in the system of law that forbids interference with the equal rights of every man to enjoy the fruits of his own capacity will be found a true law of material progress.

Taxes on crude wool, ores, on lumber, dyestuffs, and chemicals yielding but a small fraction of the revenue, yet heavily increase the cost of the product of our own factories, and thereby they tend to protect the foreign manufactures in competitive countries whose rulers are too wise to put any taxes upon the material necessary to their own domestic manufacture.

Witness the fact that Protection fails to protect both wool and woollen manufactures. Under the existing conditions the domestic consumption of raw wool has diminished, while the import of woollen manufactures has increased. The heavy tax upon wool has so far advanced the cost of materials that even under yet more excessive taxes the foreign goods are protected and are brought in in increasing quantities. Taxes on food and fuel, on fish, vegetables, provisions, and coal, increase the cost of living and oppress those who earn the least wages more than any other class, while they are of advantage to no one,—mere obstructions to progress. Such taxes fail to assure even the control of the home market, and surely retard foreign exports. The burden is diffused in the most subtle manner, so that no one can measure the retarding influence until such taxes are removed.

That is proved by the economic history of Great Britain, but we may witness the progress which ensues from the removal of petty taxes in our commerce with Porto Rico, since reciprocity was established with that island imports and exports advancing fivefold in less than five years, or from an aggregate of four million dollars (\$4,000,000) to over twenty million dollars (\$20,000,000), about evenly divided between imports and exports.

The experience of Great Britain between 1842 and 1856 also

proves that with every remission of the petty taxes that were taken off, under the leadership of Sir Robert Peel, manufactures, trade, and commerce went forward by leaps and bounds, and the population of the British Islands was brought up from the most disastrous conditions that ever prevailed, as they existed in 1840, to the most prosperous conditions, under which they have continued down to the present time, retarded of course at different periods, and especially at the present time by the brutality of war and warfare.

Our own national progress has only been slightly retarded by the interference with free commerce on the seas. The absolute free trade among the States and the impossibility of supplying the greater part of the manufactured goods required from any foreign source has rendered even the present excessive tariff no very serious obstruction. Its worst effect is the political corruption that it engenders. The system is now intellectually dead.

In the tendency to individualism and to an increasing product in ratio to numbers employed, I foresee that the time will come when the home and the family will again become the unit of society, when the head of the household will be able to support the average family, and the evils of overcrowding will be overcome. The force of invention now tends to the wider area of cities, the closer neighborhood of farms of lessening area.

Some of you may live to see the day when a good subsistence and a comfortable home will be so well assured to every man of average intelligence and industry that it won't pay to be rich, and when all may enjoy the leisure so well defined by an old Bohemian in one of my cooking-books,—“Leisure,” he says, “consists in the diligent and intelligent use of time.”

I happened to be employing the little leisure that I can find in the conduct of my affairs to the solution of this problem, but have had to hasten the work, since only two or three days ago Mr. Brooks asked me to submit it to you. A complete study of the forces now in action that are symbolized by the figures submitted to you cannot be made by any private investigator, and I trust that Mr. North, the superintendent of the Census, will be impressed with the aspect of the case herein presented, and may so organize the affairs in the Census De-

partment as to bring out the relative numbers and conditions of the Collective and Individual branches of industry on the lines which in this paper I have merely sketched.

My own observations during over sixty (60) years of employment by corporations has led me to the same conclusion to which this analysis leads, namely: the corporate or collective system is necessary in the conduct of railways; it is convenient for the organization of many departments of industry; it has been adopted in many manufacturing corporations, where it has proved to be a somewhat costly and ineffectual method. In all the large and necessary corporations you will observe that some one man comes to the head with paramount influence. Sometimes he is advanced too rapidly, he loses his head, he fails and is removed; but without this paramount influence of individual power and capacity there is no efficiency either in the railroad or the manufacturing corporation.

In the manufacturing corporation I have witnessed many beginnings by a few powerful stockholders concentrating their force under a strong management: hence success, with full dividends. These attract attention, gradually the stock becomes widely distributed, the founders die off, and it falls into the ordinary management without a single responsible head: then comes failure and re-organization. The history of corporate manufacturing, I think, in a majority of corporations is a record of alternate success, failure and bankruptcy, reorganization and reconstruction, the necessity of individualism declaring itself in every phase.

In the lesser arts the corporate system seldom attains, except in recent years as a substitute for limited partnerships. Individualism is implanted in human nature. Effective work demands personal liberty, freedom of contract, and the unrestricted use of all the elements of production and distribution, including time. All efforts to restrict the exchange of products, of course admitting necessary police regulation by legislation, and all efforts of trades-unions to limit the use which each man may make of his own time and his own capacity offer temporary obstructions to progress and welfare. One after another these devices attract unpractical, sentimental, or selfish persons, and are imposed upon large numbers of people often against their will.

In the end, individualism has prevailed, and will prevail. Every attempt to deprive adult men and women of their liberty to use their own faculties for their own benefit, which they cannot do in trade or commerce except to the mutual benefit of those with whom they deal, will in the lapse of time be rejected, and the fundamental law of personal liberty will yield the utmost benefit and the greatest measure of human welfare.

I entered upon this investigation with this impression on my mind, but I have endeavored to analyze the figures which I have presented to you without being biased, and to put before you the positive results which may be derived from them.

I trust the superintendent of the Census may adopt and improve my methods. I have only been able to show the way and to give this imperfect sketch. If the trained experts of the Census Department should tabulate the arts and occupations by classing the collective factories and workshops in their order and the lesser arts according to their kind, and by classing occupations by the relative demands on the faculties of brain, hand, and eye with corresponding tables of relative earnings, I am certain that the tendency to individualism in every occupation would be proved.

Another factor in material progress should be noted. In the last century the profit of each generation consisted wholly in saving the waste of the previous one. In the present century it seems even probable that the profit of each decade will consist in saving the waste of the previous ten years. Inventions are now proceeding with such rapidity, and the forces of electricity, of gas engines, of steam turbines and new tools and machines, are coming on so fast that the progress of the factory and the workshop may be more fully indicated by the size of the scrap heap than ever before. If the improbable should come to pass, and it should prove that the great bogs of carbonaceous material which have formed in all the hollows of the glacial drift of the North, and in the morasses and lagoons of the South, are in fact coal in its primary form, needing only a simple and cheap mechanical process in place of geologic ages to convert it into fuel, coke, and gas, another unlimited supply of power will be added to our resources.

I have called attention to the fact that the profit of each

generation in the past has consisted in saving what was wasted by the one before. The next great saving in waste may be in architecture, in saving the waste of roof space. Architecture should stand at the head of all the arts, yet we have developed no national type. The common type of roof (now giving place to flat roofs, seldom fully utilized), whether the pitched roof, the Mansard, or the crazy roof decorated with inverted mustard pots and pepper boxes, and the hollow flat roof with wooden cornices, are all bad and dangerous. The interior of the pitched and Mansard roofs is usually encumbered with combustible rubbish, while the exterior seems to have been devised for the special purpose of catching sparks and attracting flame, so that the spread of a conflagration is most fully assured. Perhaps the worst examples of bad, wasteful, and dangerous roofs are to be found on asylums, hospitals, and often on school-houses and college buildings.

When safe and solid construction takes the place of combustible architecture, flat roofs may be so constructed as to become the resort of those who dwell in tenement houses in the hot nights of summer; they will give place for roof hydrants and fire apparatus protected by parapet walls on business blocks; they will provide open spaces in summer, glazed in winter, on the school-houses that are in crowded cities with no sufficient playgrounds attached; they will give places for sun and air upon hospitals where sun rooms for winter use may be glazed, and tents may be put up in summer. In short, if true regard be given to the motive of each building, the present waste of nearly all the roof spaces of cities may be saved and put to useful purposes, adding an area at very slight cost equal to the ground area on which city buildings now stand.

A beginning has already been made. The roof gardens on a few of the hotels in upper New York and on some of the theatres, and the provision for recreation of the employees upon the top of the latest and safest of the department stores, prove that true architects, or some owners who direct architects, fully comprehend this subject.

It is sometimes held that the soul of a people is embodied in its arts, especially in its architecture. If that is true, in what type of architecture is the soul of the people of this country expressed? Possibly in the old colonial type of a detached

dwelling-house standing for the home and the family. Who can name any other example? The reversion to that type is a hopeful sign of the present time.

The mention of cement opens another broad field for reflection. The most backward art in the United States is what may be called in this treatise the Manufacture of Buildings, in which the largest body of workmen outside of agriculture is occupied, constituting the Building Trades. This art is under the supervision (I wish I could say the intelligent direction) of a special class called Architects, who are ambitious to be artists, but who until recent years paid very little attention to engineering or to the principles of construction, holding the utterly erroneous position that the work of the engineer and the builder did not constitute a necessary part of the training of the artistic architect, and forgetting that some of the greatest architects of the Renaissance were among the greatest engineers of their day. I may only name Michel Angelo, Brunelleschi, and Leonardo da Vinci.

A change is rapidly going on under the urgent call of men of affairs for competent architects who may be capable of constructing buildings that shall not go rapidly into the ash heap by way of fire. As I once told Sir John Cockburn when witnessing the active work of the Boston Fire Department, "We may judge of the architecture of this city in inverse proportion to the activity and skill of the Fire Department."

The beginning of architecture and also of printed or inscribed records is found in the age of clay, when unburnt bricks were the materials for the construction of buildings in Egypt, and clay tiles marked the beginning of books of record in Assyria. In the course of time the work of construction passed from the age of clay or unburnt brick to the age of stone with timber roof, where roofs were needed. The next stage was the age of brick or stone with open timber construction in the cathedrals and other buildings; much later came the age of the basket-framed wooden dwelling encased in brick or stone walls of tolerably solid construction; presently passing on to the age of sham or of wooden structures of the most combustible kind set off within brick or stone walls in churches, memorial halls, school-houses, and dwellings, giving a sham architectural appearance on the outside, but provided within with every

possible open way for fire to pass protected from water from the heating apparatus in the basement to the peak of the hollow roof. Next came the age of cast iron and of wrought iron combined with brick and timber, from which we have passed into another age of sham or to the basket-work construction of light steel, exceedingly subject to corrosion, holding up under fire so as to assure the complete destruction of the contents even without serious injury to the frame, and veneered on the outside with brick or thin slabs of stone.

We are now passing on in the upward spiral of progress again to the age of clay,—burnt clay in brick and tile and plastic materials,—concretes, cohesive tiles, bonded by cement, combined in new forms of solid, durable, and true construction, to which true architects may give dignity and æsthetic beauty such as can never be imparted to the sham construction of steel and veneer.

Book-making passed from the age of clay tiles through the use of papyrus, palm leaf, and parchment, thence into strong, well-made fibrous paper; but now, alas! passing downward, not upward, into the age of wood pulp loaded with clay, a reversion of the most detestable order, from which it may be hoped that we shall emerge when science and invention find a way to make good paper,—durable, strong, and light without the clay,—and save us from being cheated with clay products combined with mere pulp that possess neither present merit nor permanent durability.

In this reversion to clay and plaster materials we may soon witness the beginning of a national type of architecture, untrammelled by the quality of the materials to which our buildings have been restricted. Let us hope for it. Again, this means Individualism in the practice of architecture, the study of the motive of each building, the adaptation of the products of clay and plastic cement to the special condition of each section of the Union. It may be hoped that, in the progress of this change, men will come to the front who, combining the functions of the architect and the engineer, may be trusted to design the great factories and workshops, and who may put into them evidence that industrialism and true art are not inconsistent with each other.

We are entering upon a century of industrial activity in

which militarism, imperialism, and war will be suppressed by the force of commerce.

I use the word "force" in order to call attention to one of its most singular applications in the manufacture of killing instruments.

Very truly has Dr. William Everett observed that "man is the only illogical animal." In proof of this witness that the most potent agent in promoting the era of peace is the inventor and manufacturer of killing implements and machines. These men seek only their own personal profit. The manufacturers are governed by commercial motives. They seldom, almost never, take any personal risk in the use of the weapons that they make. A glance over only a few names will prove this. A slight investigation also proves that the profits in this branch of manufacture have been very large, leading to some of the largest fortunes. We may name only some of the more conspicuous among the inventors and the manufacturers of killing machines: Krupp, Armstrong, Hudson Maxim, Winchester, Remington, Whitworth, Hiram Maxim, Sharp, Ericsson, Laird, Gatling, Cramp. I have the impression that the Mauser, Krag-Jorgensen, Martini-Henry, and other European rifles are the invention of civilians, but, where men of inventive capacity may be forced into military service by conscription, some inventors may be in the service. These are the names of civilians by whom inventions have been made, and science has been applied for commercial purposes. Not one has ever appeared among masters of the art of war.

On the other hand, not one name ever conspicuous in military or naval records appears among the inventors. Glance over the list of names of men who have become famous in war, and, with here or there some minor or temporary improvement, not one is credited with any invention of any permanent importance in the conduct of war. As one of the greatest inventors in this line once wrote to me, "Had it been left to military men to invent their own weapons, they would have been fighting to-day with stone axes and wooden clubs."

Yet more, all the great inventions have been forced upon military and naval officers. The "Monitor" was built at private cost and forced into our navy, where it met and destroyed the "Merrimack," which had been built at the instance of

Governor Wise of Virginia, who had no military record. It saved the navy of the United States from destruction, and perhaps saved the nation. The reason is plain. A type of mind which is capable of comprehending grand strategy and the science of warfare is not inventive. It is conservative. It deals under certain general principles with things as they are, and hates to have all its tactics, drill, alignment, and method of developing armies changed and altered.

We are fortunate and singular in this country in having no military class or caste, nor does either the army or navy service attract intelligent men for any reason that it leads to a high social position. The graduates of West Point, brought together from every part of the country, subjected to a rigid but very narrow course of instruction, are sent away as soon as they graduate to distant points; seldom met in what is called society; always welcome when they do appear.

The graduates of the Naval School at Annapolis are assigned to duty at far distant places; seldom met in society, as it is called, perhaps oftener than army officers because the navy yards are near cities. They, again, are always interesting because in the peaceful duties of the navy, in the coast survey, the maintaining of lighthouses and other scientific pursuits, their minds are broadened and led to a wider interest than the ordinary duties of the army officer lead to.

Again, one of the great advantages of this country over every European nation is the conspicuous absence of the regular soldier on the streets of cities, yet more in the rural districts. How many of the younger people of the present generation have ever seen a regular soldier in uniform?

Neither career offers any future to a man of inventive capacity or great organizing power. It follows, especially in respect to the naval service, since it became, as some one has said, "a very dangerous branch of mechanical engineering, very much underpaid," it ceases to hold the men of highest capacity. Many, very many have left before reaching middle life to take the places which are always open to them, which call for a much higher standard of ability and for more useful service than in the navy, promising to lead on to fortune in place of dependence in old age upon a meagre pension. It would not be suitable for me to name the large number of men

who have graduated in these schools, who are now in charge of many of the largest works in this country, but they are well known to every one who comes in close contact with these establishments.

Witness again the power of the inventor in the almost childish proposal of the czar, even in his broad design which led to the organization of The Hague Conference. He proposes to stop the progress of invention and to limit killing instruments to their existing conditions. He would put limits on the hell of war, lest it should become so conspicuous as to stop warfare. Of course such proposals are futile and fleeting. The inventor is more potent than the czar, and the Russians are now meeting the proof.

Again, the efforts of the charitable to mitigate the horrors of war, and to bring the Red Cross organization to alleviate suffering, merely serve as almost transparent screens, covering, but not hiding the abomination and barbarity of the whole system.

Yet there are men to whom service in the army and navy is always attractive, even though not governed by the mere brute element which we find in such books as the "Autobiography of Lord Wolseley" (whose name has perhaps been misspelled: it might read Wolfsley), in whom the survival of the brute, even coupled with high intellectual qualities, indicates the degradation to which manhood may be brought in the practice of a profession.

The class of men to whom service in the army and navy is attractive will still be called for even when the great battle-ships have passed away, and the absurd dogma "In peace prepare for war" by exhausting the resources of a country has been exposed and been rejected. There will for generations to come exist the necessity of a moderate force for the protection of commerce from predatory nations, and there will be need, as there is in Canada, of a national mounted police which calls into its ranks men of high character and standing.

Again, the peaceful service of the navy may always draw into it men of ability whose interest in science finds opportunity in the development of the service to which I have previously called attention.

The advocates of peace are not, as a rule, non-resistants or men of peace at any price. What they seek to compass is the limit of armies and navies to the defence of liberty, of the freedom of the sea and the protection of commerce against privateers, pirates, and predatory rulers, waiting for the time to come when dynastic families kept in place by caste and privileged classes have either degenerated and died out, or have been deposed by the establishment of popular sovereignty among the masses whom they now oppress.

There is nothing more shallow or sophistical than the tone in which what is called Commercialism is often held up to scorn.

By way of commerce human wants are supplied and human needs are met.

It requires the service of men of more commanding ability than armies or navies, and at its behest the century on which we have now entered will be dominated by its power.

One only needs to review the events of only six generations of the customary number of years, so defined, to bring before his mind the evidence.

It was one year after I was born when the first steam locomotive passed over the iron rails on this continent.

When my father was born, there was not a power loom in this country and very few in England.

Modern industry and commerce have been developed within the span of a single life not yet fully spent. All these forces tend toward the "Eternal Peace" that Immanuel Kant predicted a century since:—

"Can this thing come to pass?
Nay, if it be, alas—a Vision,
Still let us sleep and dream it true;
Or sane and broad awake,
For its great sound and sake,
Take it and make it Earth's and Peace ensue."

"Arthur Arnold."

I have said that one who can read the lesson of which these figures are the symbols cannot fail to be an optimist, as he comprehends the forces that have so changed the conditions of the world in the nineteenth century. Before that period the progress of the world had been by war: in that period that

power of commerce began the suppression of war, and the development of science is now rendering the suppression of the predatory nations more certain.

It may be deemed only a vision, even a mere fancy, to predicate the cessation of warfare on the forces of invention and of commercialism. There is much shallow sophistry in the denunciation of commercialism; but what is it? The word stands for the conduct of commerce, and it is by commerce that the hungry are fed, the naked are clothed, and the homeless are housed. It rests on mutual service, it demands peace and order, its conduct rests on probity, integrity, capacity, and character.

The practical man can find in these conditions, and in the present application of power, light, and heat generated by methods unknown before the men of threescore years and ten had reached middle life, the assurance of yet greater abundance, more widely diffused, when the war of tariffs shall have become as grotesque and as futile as the war of battleships is becoming, when met by torpedoes and submarine destroyers.

The idealist who accepts no dogma and admits no final authority in either science or philosophy can find in the "ion," or spark of mental energy by which his life is governed, the promise of the infinite and the eternal, the light that leads up to the high thought that can never alter. To him

"The one remains, the many change and pass.
Life, like a dome of many-colored glass,
Stains the white radiance of eternity,
Until death comes, and shatters it to fragments."

A few words of more general import in conclusion. The imagination is a prime factor in the promotion and in the conduct of all large undertakings. I mean not the mere fancy of the unreasoning speculator or stock gambler, but the forecast and power of basing present action on the long distant future. I may cite the late Oakes Ames as an exemplar. He was a skilled mechanic who had reached more than middle age in the prosaic occupation of making shovels in which he had secured a fortune. None would have imputed imagination in the ordinary sense to him. He was a man of strict integrity, of solid character, and the highest probity. Elected to Con-

gress, his imagination was aroused by what then seemed almost a fanciful project of binding the Pacific States of the Union with iron rails. This great conception took possession of him, and into it he put his whole fortune at the greatest risk. True himself, he did not suspect others. He became allied with men of great ability, but of little honor or integrity, and they betrayed him. In the pursuit of this great national work he sought support among his associates in and out of Congress. He used his personal credit in the rashest manner in order to bring in funds necessary to the conclusion of the great work. Prudent men distrusted the undertaking, and refused to invest. His colleague, Mr. Samuel Hooper, risked a large sum, and, when other colleagues deserted Mr. Ames, he stood by him manfully and justified his course. For years success was doubtful, but at length it was attained. Attacks were then made on all who shared. The base deserted him, and cowards in Congress went back on him, trying to screen themselves from acts for which they might have been proud by imputing to him corruption and venality. This man who had accomplished more to maintain the union of the Pacific and Atlantic States than any other man in civil life was hounded to his grave by an unjustifiable and unmerited vote of censure.

But the imagination is also a potent factor in causing temporary depression and retardation in material progress, leading sometimes to senseless panics. At the present time we witness an example. The word "protection" has become a sort of fetish, and, when changes are proposed in the tariff, business men begin to halt in all their transactions, even those who could only gain with every removal of a duty on imports, who are by far the largest number occupied in business. They imagine that there will be a great change in all prices, and then they buy and sell only from hand to mouth, ceasing to lay up even their customary and almost necessary stocks.

This country was never before so full of wealth as it is now. There never was a greater amount of capital waiting for investments. The opportunities for the expansion of industry, of trade, and of commerce, were never so great, yet depression exists, and, in the common phrase, "trade is very dull." Why? The tariff question is up, and all think they must wait to see what Congress will do. If only the fact could be made plain

to every one that whether by means of the high tariff which has been enforced for a generation since the end of the Civil War, or in spite of it, our arts have reached such a state that out of over thirty million (30,000,000) persons now occupied for gain, supporting eighty-two million (82,000,000) population, not one million (1,000,000) could be harmed, while all the rest would be benefited if every duty upon imports were repealed and every custom house were razed to the ground! Were it not for this misleading imagination, activity might take the place of the present depression. No one even suggests such a radical measure, nor could absolute free trade be reached, even if it were believed to be most desirable, under the present necessity for collecting a moderate revenue for duties on imports. But may not the proofs which are herein assembled bring support to such a change in duties on imports as shall make it certain that all taxes that the people pay the government shall receive? Can any one sustain a policy by which the power of public taxation is perverted to purposes of private gain? May we not demand reciprocity on the one hand, and the adjustment of duties on imports in such a manner as will best promote domestic industry, protect American labor, and assure the public welfare?

If in this effort to bring public support to a true policy of protection to domestic industry and to the tendency to individualism, these treatises may be timely and serviceable, I shall be well satisfied. I shall be no more scared by the hard words that may be uttered than I have been by the foolish cry of "traitor" which was put upon me because I stood firmly on the principle of liberty and denounced criminal aggression upon the people of the Philippine Islands.

The principle of liberty is too deeply embodied in the institutions of this country to be overcome by any legislative restrictions not rightly covered by the power of the police to prevent abuse. Free soil, free speech, free press, the greatest possible freedom in the division, purchase, and sale of land, Free Trade on a continental scale within our own domain, have been attained. The few restrictions on the right of every one to enjoy the free use of his own time and capacity will soon be abated.

PROTECTION OF PIG IRON—WHAT DID IT COST?—WHO
GAINED?—WHO PAID?

I submit the analysis of the iron and steel industry from D. A. Wells's last book, entitled "Recent Economic Changes." I shared with him in making this analysis, which is carefully guarded, is conservative, and is far within the mark in proving that in the ten years which elapsed from 1888 to 1897 the excess of disparity in price paid by the consumers of this country mainly to the producers of iron and steel, stated by Mr. Wells at five hundred and sixty million dollars (\$560,000,000), was in fact nearer seven hundred million dollars (\$700,000,000) than the sum named. This disparity, whatever the price may have been in either year in this country or in Europe, rendered it impossible for the converters of pig and bar iron into machinery and the higher types of metallurgy of this country, to compete with the workshops of Europe, while the iron and steel makers of the crude forms of pig, ingot, and bar were enabled to convey enormous sums from the pockets of the consumers into their own quickly accumulated wealth. The intermediate consumers of these crude forms of metal, the machinists, the tool makers, and that vast body of craftsmen far more numerous than all occupied up to the pig, bar, and rail, were restricted and oppressed, while their competitors in Europe were fully protected in their control of all other markets of the world, and in part of the home market in this country.

It will be observed that American labor was not protected. The proportion of hands occupied in mines, coke ovens, furnaces, and rolling mills, is but a small fraction of the persons occupied in all the manufacturing and mining arts: a small portion even of that force consists of skilled labor, the larger portion being common laborers of a very low type,—not their fault. But American labor, either native or native born, finds occupation of a much higher and more useful quality than to work under the squalid conditions of the mining towns and of the blast furnaces as they were in the period. It followed that the mine owners and furnace men imported foreign workmen of every type to fill places that they could not fill at home at very low rates of wages, bringing about the most dangerous and squalid conditions of life that have ever existed in any

section of this country, hardly yet alleviated. What had been protected and what is the necessary course of interference in the conduct of an art which could not have been kept out of this country by any legislation short of prohibition was the gradual concentration of the control of all the great establishments among a lessening number of owners, a greater and greater subjection of the workmen to their control, strikes, violence, and conflict from time to time, until in 1890 the home competition and the very great skill of the men who had taken the lead brought prices down to a parity with foreign prices or even less, proved that the artificial stimulus of protection had never been required, and brought about even conditions in the prices of crude iron and steel in this country and in Great Britain. Straightway the higher forms of metallurgy—the conversion of these crude forms into their higher types—went on by leaps and bounds, and the exports of machinery amounted rapidly to over one hundred million dollars (\$100,000,000).

But the concentration of the iron and steel works went on, culminating in the Steel Trust in which all the real capital represented was less than what the consumers of iron had paid in ten years in order to support what was grotesquely called an infant industry. The fortunes of the great multi-millionaires, so far as they have realized them in cash by getting rid of the paper stock of the steel trust, represented in part their skill and ability. Many of them were men who would have built up the iron and steel industry without protection as surely as they built it up under the system. Their excess of profits beyond the normal rates in unsubsidized work conveyed from the pockets of consumers into their hoards amounted to more than the cash value of all the property that they put into the Steel Trust.

The end is not yet. The public has not been gulled into a digestion of these paper stocks. Strenuous competition has been rapidly developed; the prices of iron and steel are again about at a parity with foreign prices; the exports of machinery and tools are again increasing; and the public has begun to comprehend the axiom put forth by Mr. Havemayer, that "the tariff is the mother of trusts"—and yet more, the instrument by which the multi-millionaires of the Steel Trust have secured in part, if not wholly, their enormous gains.

The natural law of free exchange and competition evolves high wages, low prices, large product, and a lessening margin of profit on each unit of product. That is the law of progress. The Steel Trust gives a most conspicuous example of the law of retardation and obstruction,—low wages, large profits, restricted consumption, compelling help from imports even at very high prices and excessive duties, higher branches of industry greatly retarded, private profits enormously augmented.

But, if the only objection to the system of protection were its cost, even if, for each dollar which the treasury receives on tariff taxes, another dollar must be added which the people pay, but which the government does not receive, the burden in dollars and cents would even then be of relatively small importance. The continental system of free trade has saved us from any serious injury through the privation of free commerce with other countries. The evil is not disclosed by the mere cost: it is far deeper. Protection generates a privileged class. Patronage, the distribution of offices becomes one of the instruments by which the privileged class secures political influence. Privilege, patronage, and protection are synonymous terms. Whenever and wherever, or under whatever party name, the power of public taxation is or can be perverted to purposes of private gain, the politics of the country are degraded. Public office in place of being a public trust is perverted to the support of private trusts.

In districts and in States, men of the highest intellectual capacity, most capable of becoming statesmen, are practically barred from public office because they will not submit their convictions of right and justice to the demands of the privileged class by whom the caucuses are managed and the members of Congress are nominated. In other cases, in some very notable instances at the present time, men in high positions have sacrificed their own convictions in order to attain high political position in Senate and House. Such men are used by the privileged class to promote their own purposes, but they have neither the respect nor confidence even of their own supporters. There can be no true statesmanship, no true selection of representatives in Congress, no true organization of the civil service, so long as the power of taxation is per-

verted to purposes of private gain, miscalculated protection. Even if this policy had promoted greater material welfare, even if it had accomplished the alleged purposes and in many, many cases the honest and sincere purposes of its promoters, yet it must be condemned. The price of political corruption would have been too great, even if material success had been attained. But having utterly failed,—having retarded rather than promoted the material welfare of the nation,—it must be condemned economically, morally, and politically.

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